



# NEWSLETTER

**No. 98-10**

**APR 98**



## **FIGHTING LIGHT/HEAVY in a RESTRICTED TERRAIN**

**Tactics, Techniques, and  
Procedures**

**CENTER FOR ARMY LESSONS LEARNED (CALL)  
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)**

**FORT LEAVENWORTH, KS 66027-1350**



## PREFACE

Realizing the need to foster a closer sense of cooperation between the light infantry company and a tank force when task-organized, the Chief of Staff of the Army, General Dennis Reimer, directed that the Army develop Tactics, Techniques, and Procedures (TTPs) for the Infantry/Armor Team.

Because Fort Lewis, WA, is the only installation where heavy forces and light forces share a post, it was chosen as the site to begin working on these TTPs. Specifically, the 1st Corps was given the mission to develop, train, and validate the TTPs needed to help an infantry company commander fully utilize an armored force to his advantage and to exercise the unique capabilities of both maneuver arms under designated conditions.

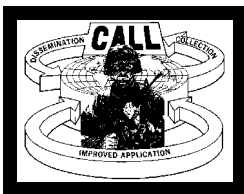
Knowing that more help was needed, the then Corps Commander, Lieutenant General Caryl G. Marsh, enlisted the aid of the U.S. Army War College to help develop the initial TTPs. Three Lieutenant Colonel students, Dan French, Dave Tindoll, and Craig Stone, developed a draft manual, *The Light Infantry Company Employment of Tank Platoons in Restrictive Terrain*. This manual served as a starting point by which the Lancers of the 1st Brigade, 25th Infantry Division (L), and elements of the 1st Battalion, 32 Armor (3d Brigade, 2d Infantry Division), could start to develop the critical techniques needed.

This newsletter opens a dialogue and creates an opportunity for units to exercise these light/heavy TTPs. Exercising the TTPs is an essential and necessary step in their proliferation to units that may have to employ tanks in close and restrictive terrain, and to perpetuate the eventual update of pertinent doctrine. Close and restrictive terrain has, in the past, proven favorable to Light Infantry operations, but has always been considered overly restrictive to tanks.

The brigade assigned to execute conducted "How to Fight" seminars to teach company commanders how to use tanks. These seminars focused on various missions that a light infantry company might be tasked to conduct during a typical Joint Readiness Training Center (JRTC) rotation. The brigade then deployed to the JRTC for a focused rotation with two tank companies (-) (20 tanks total) and a team of nine subject-matter experts (SMEs) to test, validate, and collect those TTPs against an opposing force (OPFOR) known for their expertise and for giving "no quarter."

The TTPs observed and reported in this newsletter are the work of numerous soldiers and civilians and represent the combined efforts of infantrymen and tankers fighting as a combined arms force. In this effort all participants realized a closer cooperation and relationship between these two critical maneuver arms. We were also able to incorporate the knowledge and expertise of many others representing their particular contribution to the combined arms team and involved at various levels in this focused rotation. This cooperation led to a greater sense of accomplishment and to mission success.

Henry St Pierre  
LTC, AR  
Team Chief



# ***Fighting Light/Heavy in a Restricted Terrain***

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## ★ INTRODUCTION ★

by LTC Henry St Pierre

**A**s professional soldiers with more than a passing interest in history, many of us equate World War II with fast-moving tank action characterized by the Blitzkrieg campaigns in Poland and France, the seesaw battles of North Africa, and Patton's Third Army race across Europe. In reality, with a few exceptions, World War II was a light infantry war where tanks provided support to the infantrymen slugging their way up the Italian boot or across Western Europe. Nowhere was this more evident than the tough fights of the First Army had in breaking through the Normandy hedgerows in the summer of 1944. Initially, infantry units moved from hedgerow to hedgerow meeting a determined, well-entrenched enemy and suffering numerous casualties in an effort to regain the offensive. It was only through very close cooperation between tanks, engineers, and the infantry that units began to have success in breaking through these well-defended hedgerows and, subsequently, set the conditions for the breakout that preceded Patton's celebrated dash across Europe.

The post-World War II realization of the Soviet Union as our number one threat dictated the need to build a faster, better armed, and more maneuverable army. In the decades since, the United States has come to depend on mechanized forces, and the tank became the prime ground maneuver weapon. This gravitation away from the World War II model of tank and infantry cooperation reached another stage with the adoption of the AirLand Battle Doctrine and the M1/M2 series of vehicles. In this doctrine, the infantryman assumed a secondary role in warfare. The results, while leading to the successful conclusion of the Cold War and Operation DESERT STORM, left the U.S. Army overly dependent on mechanization.

At the same time that we were building the force that would win Operation DESERT STORM, Army Chief of Staff General Wickham realized the need to have a more flexible, easily deployable force. This force would be better suited to handle military missions where the use of tanks and infantry fighting vehicles might not be appropriate. Thus was born the concept of light fighters and the 6th, 7th, 10th, and 25th Infantry Divisions (Light). These forces were lightly equipped and ideally suited to conduct rapid deployment in an emergency and Operations Other Than War (OOTW) types of missions. These deployment missions included peacekeeping and fighting in highly-restrictive terrain such as jungles, mountains, and Military Operations on Urbanized Terrain (MOUT). Since their inception, these forces have been the first units deployed to hot spots such as Somalia, Panama, and Haiti. Light forces proved invaluable because of their ability to deploy quickly and to put large numbers of infantry soldiers on the ground in a relatively short period of time.

In all the deployments and subsequent combat operations involving these units, one truth has become self-evident: their greatest advantage, that is, their relative lightness, is also their greatest disadvantage. It is their inability to bring heavy direct-fire weapons to bear once combat is joined that makes these units so vulnerable to even Third World countries equipped with the most rudimentary of heavy weapons. The resulting lessons learned in Somalia and Panama demonstrated a need to have tanks attached to these units when deployed for combat.

This dilemma presents itself at a time when we are faced with numerous low-intensity threats. At issue is the lack of expertise to utilize light forces with armor in certain combat situations. We forgot most of the lessons learned the hard way in World War II on how tanks and infantry cooperate. When these units are put together for the first time, there is a tendency, born out of a lack of understanding, to misuse the tanks. Instead of integrating them as part of companies and battalions, light fighters will tend to place them away from the light infantry units. The usual reason given is safety and, specifically, concern for the infantrymen on the ground. We tend to place the tanks in support-by-fire positions or convoy escort missions instead of closely integrating them with infantry to assault an objective as part of a company on battle positions or as a part of the counter-reconnaissance force. By putting tanks in such secondary roles, we fail to maximize their mobility and inherent combat potential. Light fighters lack understanding of what light forces are capable of when tanks are integrated directly into their combat formations.

This newsletter serves as the basis for developing Tactics, Techniques, and Procedures (TTPs) that are necessary for light infantry battalion, company, and platoon commanders to work with tanks. This document also provides the armor component of any such combined arms element with an understanding of the light infantry concerns when working with tanks. This effort is designed to provide all forces involved with initial TTPs to begin the process of cooperation and gives everyone a start point for dialogue in developing procedures necessary for the specific environments encountered on deployment and under the conditions in which their operations are to be conducted.

Leaders using these TTPs must understand they were developed under a specific set of circumstances. They were developed at Fort Lewis, WA, by the 1st Brigade 25th ID (L) and 1st Battalion 32d Armor--units which habitually work together. This does not mean that a light infantry unit meeting its armor component for the first time cannot enjoy the same close spirit of cooperation and understanding that exists between these two units. Indeed, that is a major reason for developing this TTP. They can – but it takes practice and understanding of each other's capabilities and limitations.

Although these TTPs were developed under controlled circumstances, they are valid techniques for any light infantry unit that finds itself in combat with tanks in support. These TTPs should be modified to meet specific terrain, circumstances, and ROE.

In developing these TTPs, six major points of consideration for successful integration of tanks became evident in all situations:

**Absolute situational awareness must exist between the tanker and the infantry on the ground.** The tanker must be aware of the location of the light fighters around him. The light fighters must be on constant guard against potential dangers associated with working closely with tanks.

**Cross-talk between the tankers and the infantry is essential to foster a good working team.** We offer various techniques to accomplish this, to include field expedient installation of field phones on the right rear fender of the tank.

**Both the infantry and the tankers must exercise tactical patience.** The tanks, indoctrinated in moving quickly from one position to another, must remember they are in a support role to the infantry. Their mission is to protect the light fighter on the ground. They also depend on infantrymen for support and protection against close ambush. Separating themselves from the infantry will not only result in needless loss of life and equipment destruction but also mission failure. Also, terrain easily trafficable to an infantryman may be impassable to a tank. Be aware that mobility consideration for tanks and light fighters is different when planning your moves.

**Use of tanks does not negate the need to use smoke, obscurants, and indirect fire when moving up to obstacles and support-by fire-positions.**

**It is essential that tankers attached to the infantry unit be involved in every step of the troop-leading procedures--especially rehearsals.**

**To be effective, organize the unit as a combined arms team.**

The paradigm that has driven the use of tanks as the primary fire and maneuver force on the armor heavy battlefield has not changed. What has changed is the role the main battle tank plays in the light infantry scenario. In that environment, the tank clearly is in a support role. Even as such, if properly integrated in the scheme of maneuver, the tank is a great combat multiplier and can provide a tremendous advantage to the light force commander and substantially increase his unit's capabilities.



## CHAPTER 1

# ROUTE-CLEARANCE OPERATIONS

by CPT Craig Triscari and CPT Adam Schroeder

*“The ability to move forces and material to any point in an area of operations is basic to combat power and often decides the outcome of combat operations. Maneuver depends on adequate lines of communication (LOC) within the area of operations. It is necessary to conduct route and road clearance operations to ensure LOC enable safe passage of combat and support organizations.”*

*--FM 20-32, Mine/Countermining Operations*

**1. GENERAL.** Most units today understand that failure to defeat enemy obstacles on roads will result in severed lines of communication. Without clear and open routes, the brigade will be unable to sustain itself. Although route-clearance operations are critical to mission success, there is often little time given to plan, prepare, and execute them. Typically, a unit deploys into the area of operations (AO) and begins aggressive search and attacks looking for signs of the elusive enemy. Too many units spend the entire low-intensity conflict (LIC) phase looking in the woods and ending up engaging only a handful of Cortinian Liberation Front (CLF) soldiers. Meanwhile, the main CLF effort attacks BLUFOR vehicles and personnel on the roads, resulting in the brigade being bled white after only five days of operations. The CLF knows the BLUFOR is highly dependent on the roads and highways, and they routinely exploit that dependence by having their CLF operate near roads. When BLUFOR commanders place route clearance units along the roads, the enemy is either pushed away or killed.

There are very few units that have been able to incorporate a light/heavy technique to accomplish route-clearance missions. This chapter discusses how a unit can integrate its heavy forces to provide overwhelming firepower and place the enemy at a disadvantage.

## 2. DOCTRINAL BASE.

*“There are two significant reasons why units achieve only limited success in the clearance of routes: A lack of clear doctrinal guidance for route clearance, and limited training.”*

*--Center for Army Lessons Learned Video Tape No. 14, “Combined Arms Route Clearance.”*

Current manuals available to infantry and armor company and battalion commanders which *do not* adequately address route-clearance operations:

- ☛ **FM 71-1, *The Tank and Mechanized Infantry Company***; no discussion on route clearance.

- ☛ **ARTEP 71-1, *MTP***; no training and evaluation outline that defines the standards for such an operation.

- ☛ **FM 71-2, *The Tank and Mechanized Infantry Battalion Task Force***; no discussion on route-clearance operations, and only general and cursory information on the integration of light/heavy forces.

- ☛ **FM 7-10, *Mission Training Plans***; very limited training and evaluation outline for route clearance.

- ☛ **FM 20-23, *Mine/Countermining Operations***; thorough discussion on the capabilities and limitations of mine rollers, mine plows, and other breaching assets, and thorough planning guidance for the organization of elements to conduct breaching operations. The manual does not provide detailed information on light/heavy integration or planning considerations for combined arms route-clearance operations.

Three references that *do* contain current route-clearance operations information are:

- ☛ **FM 5-7-30, *Brigade Engineer and Engineer Company Combat Operations (Airborne, Air Assault, Light)***. This is the only manual which clearly outlines planning considerations for route-clearance operations at the task-force level. The manual lists facts and assumptions for planning, tasks to be accomplished by the task force, and recommended task organizations. It also gives some planning guidance for employment of the Battlefield Operating Systems (BOSs).

- ☛ **CALL 1QFY96 Bulletin No. 96-1**, Jan 96, “*Route-Clearance Operations*,” by CPT John Leighow.

- ☛ **CALL Video Tape No. 14**, “*Combined Arms Route Clearance*,” produced at the Joint Readiness Training Center.

As a result of the scarcity of information and lack of detailed planning factors and training outlines, many brigade and battalion staffs do not plan route-clearance operations in sufficient detail, and many company commanders do not have sufficient knowledge to properly train on, or execute, route-clearance operations.

### **THREE EMERGING METHODS** (see also **CALL Quarterly Bulletin 96-1**):

- ☛ **Linear Clearance Method**
- ☛ **Combat Clearance Method**
- ☛ **Combined Clearance Method**

**LINEAR CLEARANCE METHOD:** This method is executed by simply moving down a road from start point to a release point. If an obstacle is discovered, security is established while an element reduces the obstacle.

**COMBAT CLEARANCE METHOD:** This method identifies enemy named areas of interest (NAI) in the area of operation and then sends the combat clearance unit to confirm or deny the position of obstacles. If obstacles are identified, they are cleared and the unit then moves to the next NAI.

**COMBINED CLEARANCE METHOD:** This method combines the linear and combat clearance methods to clear obstacles and enemy. The unit is given a mission to move and clear an NAI; after clearing the NAI, the unit proceeds down a designated route to ensure that no other obstacles are present.

### 3. PLANNING.

**Issue 1:** *Commanders routinely task units to clear and secure routes without actually understanding or planning for the extensive operations that the doctrinal definition of “clear and secure” imply.*

**Discussion:** The first question that must be answered when planning for route-clearance operations is the degree of clearance and security desired. To do this properly, leaders must understand the doctrinal meanings of “clear” and “secure.”

●**Clear** - A task which anticipates and requires the destruction of an enemy force, seizure of key terrain, and the reduction of obstacles, all of which would collectively delay or preclude the movement of following forces.

●**Secure** - To gain possession of a position or terrain feature, with or without force, and to deploy in a manner which prevents its destruction or loss of enemy action.

Looking at these definitions, it becomes evident that to clear or secure an entire route requires a huge investment in time, manpower, and resources, especially in heavily vegetated terrain. Page D-1 of FM 5-7-30 recommends that route clearance be done by an entire task force, with brigade retaining an air-assault or mechanized company in reserve.

The commander may actually only want to reduce obstacles and identify enemy traces along the route, as defined on page 2-2 of **FM 90-13-1, Combined Arms Breaching Operations**. To reduce (not “clear”) obstacles is to create lanes through or over obstacles to allow an attacking force to pass or to open resupply routes to needing units. The task of reducing obstacles does not imply that the route is secured, nor that the enemy is incapable of reseeding the obstacle area. Reducing obstacles normally will require smaller forces and less time than securing or clearing obstacles. Bypassing obstacles will require even fewer forces and resources. Neither bypassing nor reducing eliminates the threat of further enemy action along the route. The commander must decide which task or endstate he actually wants to accomplish and ensure that the proper task and criteria for success is transmitted to the operational forces.

**TTP:**

- The commander identifies what method of clearance should be conducted (linear clearance, combat clearance, combined clearance) and then provides the unit with a task and purpose.

- **Route-Clearance Planning Consideration Checklist:**

- Warning order issued, to include routes to be cleared, NAIs, and NET move time.

- Company SITEMP developed with suspected/known obstacles, ambushes, bypasses, danger areas for tanks and light infantry. (An infantry danger area is not the same as a tank danger area.)

- Indirect fires planned based on SITEMP to achieve suppression and obscuration.

- Graphic control measures established (phase lines, checkpoints, rally points, restrictive fire lines (RFLs), no-fire areas (NFAs), boundaries, medical evacuation landing zones (MEDEVAC LZs)).

- Rules of Engagement (ROE) understanding. How does it affect the battle drill or standing operating procedures (SOPs)?

- Do the tanks have roller or plow attached?

- Notify adjacent units of operations and start time.

- Communication considerations: Do engineers have radios? Does everyone in the task organization have the same communication capabilities?

- Who in the battalion or brigade is responsible for routes? (In whose zone is the route located?)

- CSS planning considerations: Sufficient demolition on hand? Sufficient marking materials on hand? Vehicle recovery plan established? Refueling/rearming plan in place?

**Issue 2:** *Typically, a battalion commander will conduct active clearance of roads within his sector without any understanding of how his clearance mission ties into the brigade plan.*

**Issue 3:** *There is often no control of traffic flow along these roads, and units conducting the road clearance cannot plan for fires along their route without the fear of fratricide.*

**Discussion:** Commanders must establish a route “CINC” for the BDE/BN sector. The CINC will open and close roads according to the level of threat and success of combat units in reducing and clearing obstacles and enemy out of the area. He will control all movement on this route. In establishing a route CINC, the brigade can effectively track the progress of road clearances as well as what roads are red or green for travel by brigade units. A possible road CINC for the brigade is either the brigade XO or the Forward Support Battalion (FSB) commander. The route CINC will have the authority to reposition route-clearance teams in the event of enemy activities or to provide additional security to key assets traveling along a particular route. With centralized control, the brigade can plot the obstacles and enemy contact throughout the brigade sector.

**TTP:** The individual designated to track the road-clearance elements must consider the following:

- **For what purpose will the route be used?** Will it be used only once to get attacking forces to an objective or will it serve as a battalion/brigade main supply route (MSR)? Does the route need to be capable of supporting two-way traffic or only one way? What type vehicles will be using the route?
- **What is the enemy situation?** Do we expect simple or complex obstacles along the route? Typical obstacles:

- ☛ **Cortina Liberation Front (CLF) uses from two to eight mines on the road.**
- ☛ **Some are buried, while others are surface laid.**
- ☛ **Mines may be in potholes, MRE boxes, or sand bags.**
- ☛ **Mines are found on the side of the road and obvious bypasses.**
- ☛ **Most obstacles are covered by either direct or indirect fires.**
- ☛ **The CLF usually will not engage well-protected convoys unless it is a high-payoff target.**
  - ☛ **It usually takes the CLF 60-90 minutes to reseed a minefield.**
  - ☛ **Mine caches are located 50-500 meters from the obstacle. If the CLF caches are destroyed, their ability to reseed is reduced.**
  - ☛ **Mines and caches are regularly booby-trapped.**

● **Time and forces available?** How long can we spend on the route-clearance effort? How long do we expect each considered course of action to take? Do we have enough forces and resources (security forces, demolitions, marking materials, proofing equipment, etc.) to conduct a detailed clearance, or do we only have enough to conduct a reduction of obstacles?

● **Terrain?** Does terrain analysis indicate that bypassing obstacles is a feasible option? Are mine rollers, plows, and detectors likely to be effective based on terrain considerations?

**\*\* A force which combines light/heavy is better suited to the task of clearing. \*\***

**Issue 4:** *Commanders have difficulty deciding upon the degree of clearance, security, and reduction to be achieved.*

**Discussion:** A guide to consider is **CALL 1QFY96Bulletin No. 96-1, “Route-Clearance Operations,”** by CPT John Leighow, which recommends four levels of route clearance:

**Level 1:** Relies on visual detection and results in a series of in-stride breaches to reduce minefields located along a route. This level does not include securing the minefield areas or searching for enemy forces or caches off the route. The use of mine rollers is very important to enhance force protection during Level 1 operations.

**Level 2:** Clearing is conducted after a more thorough IPB process has identified likely minefield locations. The clearing force secures the flanks and far side of the minefields prior to clearing and employs visual and electronic mine detection methods.

**Level 3:** Clearing includes the detailed clearing of the minefields, ditches, and road shoulders. This type of clearing should result in an updated route reconnaissance report and a map overlay update by all forces. Level 3 operations require more infantry, command and control, and more time than levels one or two.

**Level 4:** Clearing is conducted entirely dismounted and includes the securing of the flank and far side of obstacles prior to reduction. It also includes the searching of the flanks for enemy and caches and may include leaving forces at reduced minefields to protect them from reseeded. Level 4 consumes the most time and manpower.

Thorough reconnaissance will help the commander decide what level and method of route clearance is most desirable. Aerial photography, helicopter overflight, dismounted reconnaissance elements, local engineering plans, IEW assets, and information obtained from the local populace should all be employed to develop an intelligence picture of the route to be cleared. Once the commander has decided which level and type of route clearance will meet his desired goals, the staff must develop a synchronized plan that incorporates all of the BOSs. The final course of action should include measures taken to control the route once the desired level and type of clearance have been achieved.



## **TTP: BOS Planning Factors:**

### ***Intelligence:***

● S2 provides S3 and commander with template that depicts all known and suspected minefields, to include their size and composition.

● Identify choke points and areas where obstacles may be most easily bypassed.

● Indicate key terrain along the route.

● Obtain plans from the local highway or road officials. They may also be a valuable source of information.

### ***Maneuver:***

● Ensure mortar and reconnaissance assets are integrated.

● Develop adequate control measures to control movement along route and aid in clearance of direct and indirect fires.

● Apply engineers, indirect fire, and air support to ensure success in fighting the route-clearance mission.

### ***Fire Support:***

● Fire Support Officer (FSO) recommends best shell/fuse combination, sheath configuration, and type of mission to S3 and controlling commander.

● FSO develops clearance of fires procedure and ensures rapid response of fires, especially obscuration fires.

● Pre-clear as much of the route as possible.

● FSO advises commander of assets available, to include smoke and illumination.

### ***Engineers:***

● Give the commander a realistic estimate of how much of the route they can clear and reduce, given the available assets and time.

● Ensure all possible assets are utilized: demolition, mine detectors, thermal sights, mine rollers, mine plows, explosive sniffing dogs (if available), bulldozers, small equipment excavators (SEEs), armored combat earthmovers (ACEs), or chainsaws.

● Provide bridge and road classifications to S2. (Brief the commander on bridge and road limitations.)

***Air Defense:*** Advise the commander on the best utilization and task organization of available ADA assets.

### ***Combat Service Support:***

● Ensure adequate medical and ambulance coverage is assigned to the clearing force.

● Ensure vehicles being used in the operation are carrying extra water, ammunition, meals, batteries, Class VIII (medical), and stretchers for the infantrymen.

● Develop plan to resupply clearing force with fuel and emergency parts.

### ***Command and Control:***

● Ensure the command relationship for all elements involved is clearly stated and understood.

● Ensure a simple, effective frequency plan.

● Plan for retransmit or relay to maintain continuous communication with commander.

### ***Aviation:***

● Consider the use of helicopters, such as the OH-58D and the AH-64, in an OPCON relationship to provide forward reconnaissance and immediate direct fire support.

● Plan for aerial resupply of fuel, ammunition, water, and parts.

### ***Civil Affairs:***

● If situation warrants, publish warnings to civilians to keep them out of harm's way during clearing operations.

● Coordinate with local officials to ensure their assistance in the route-clearance operation.

**Issue 5:** *The company/team commander who is tasked to conduct a route-clearance operation may find it difficult to find doctrinal references that assist him in planning a task organization.*

**Discussion:** It is important for the task organization to be able to support the clearance mission and fight under one company command headquarters. The task organization should be established as soon as possible to maximize on time available to plan and rehearse. Listed below is a recommended task organization of a light/heavy company team for Route Clearance.

<b>TASK ORGANIZATION</b>				
<i>1st PLT</i>	<i>2d PLT</i>	<i>3d PLT</i>	<i>TANK PLT</i>	<i>HQ PLT</i>
FO	FO	FO	TANKS (PLOW,ROLLER)	FSO
MEDIC	MEDIC	MEDIC		MEDIC
	ENG SQD (L)			ENG
SQD (M)				FLA/113 MED
				TRK PLT (4)

An example key task for each platoon under task to maneuver units:

1st platoon provides local security for the convoy when stopped to prevent the enemy from destroying or harassing the armor and vehicular assets on the road.
2d platoon will attack to clear the flanks of danger areas or obstacle locations to destroy enemy forces and caches.
3d platoon establishes ambush positions near identified obstacles to destroy forces returning to the breached obstacles.
Tank Platoon provides convoy security and assists 2d platoon in providing overwhelming firepower on enemy forces.
Engineers will assess and breach obstacles so that the convoy can pass and move out of the danger area.

#### 4. PREPARATION.

*The company commander should establish a rehearsal area and rehearse all task-organized units.* A rehearsal of breaching and clearing operations is paramount to the success of the operation. At a minimum, the commander should rehearse:

<b>Dismount drills</b>	<b>Breaching an obstacle</b>
<b>Actions on contact</b>	<b>Fire plan</b>
<b>Recovery plan</b>	<b>Remount plan</b>

*The company commander can enhance the team's survivability by preparing their vehicles and personnel to conduct route clearance.*

☛ **Good pre-combat inspections (PCIs) will allow for greater flexibility if the situation changes.**

☛ *The commander should take the opportunity to ensure his soldiers have adequate protection while conducting route clearances.* This may include sandbagging vehicles, opening hatches to lesson the effect of mine blasts, and having troops wear protective vests and Kevlar helmets with eye protection. All of these safety precautions increase the survivability of the clearance team.













#### **Suggested PCI Checklist for Route-Clearance Operations**

What type of ammo the tanks have (HEAT vs SABOT)	PMCS of all vehicles	Additional dog bones, chains, and lifter straps for the rollers and plow	Engineers have breaching equipment, mine detectors, marking equipment.
Demolition prepped and cross-leveled	Grappling hooks for both tanks and infantry	Barometric pressure and temperature given to tank crew	Weapons cleaned and loaded, pre-fire checks completed.
Register of mortars, fire support rehearsals	Communications exercise of all communication systems to be used during the operation	Additional ammo to be carried by the armor	Attach tank field phones if not already done.
Graphics and updates	Weapons boresight and zero	Camouflage of equipment and personnel	Soldiers' knowledge of the mission.

## 5. EXECUTION.

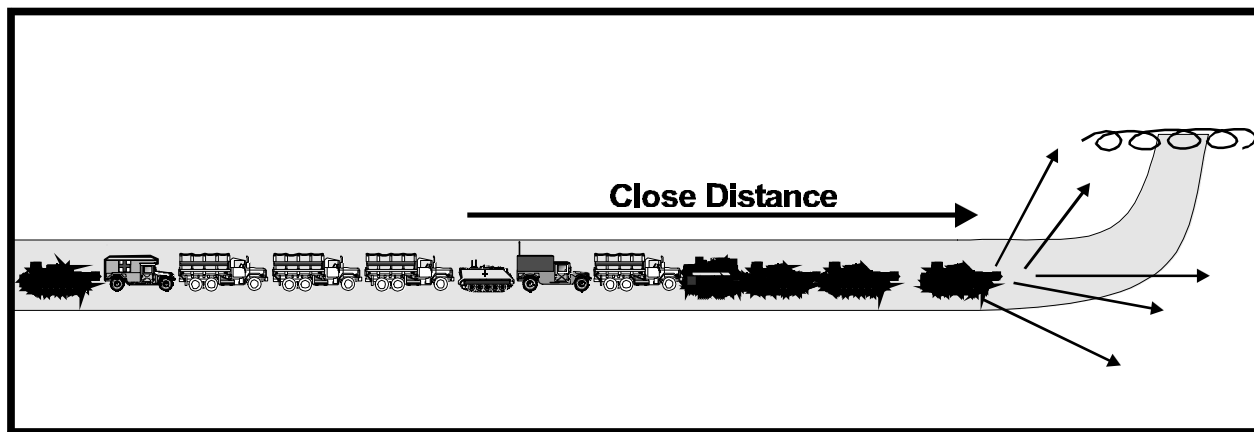
*For a route-clearance operation to be successful, a company team must employ all of its combat multipliers at one decisive point along the road. This point is usually an obstacle, NAI, or danger area.*

The synchronization of combat multipliers is controlled by the company commander. The commander ensures that the light/heavy team works together in one clearance technique. The technique discussed below is just that--a technique that can be modified to fit the unit's particular task organization. This technique incorporates fire support, engineers, tanks, and infantry to overwhelm the enemy if they become engaged.

TASK ORGANIZATION												
4 tanks (with plow and rollers) 3-4 trucks 1 FLA 1 113 Med						1 ENG Sqd (L) 1 ENG Heavy 113 3 INF PLT CO HQ						
LEGEND												
												
M1	FLA	5 TON	5 TON	5 TON	MEDIC 113	ENG HMMWV	5 TON	ENG 113	M1	M1	M1	M1
FLA                    ■ Field Ambulance HMMWV Red Cross 5 TON                = Standard Army truck each with some infantry in the back MEDIC 113        = M113 with Red Cross ENG HMMWV      = Standard HMMWV												
NOTE: Separation between vehicles should not exceed 35m except the lead vehicle which is 75 to 100m in front of the convoy.												

**Figure 1-1**

**NOTE:** Separation between vehicles should be in accordance with the maximum blast radius of the suspect enemy mines. The lead vehicle is 75-100 meters in front of convoy. This provides standoff in the event lead tank runs over a mine.



**Figure 1-2**

### **TTP:**

- Lead tank closes with obstacle, danger area, or NAI. The lead tank fires to his left and right, clearing the area through fire. At a minimum, the tank should engage with its COAX. The main gun can be used as a direct lay weapon system against enemy positions. (Suppress)

- The commander should call for smoke to his flanks as well as forward of his position. The tanks can fire their smoke grenades forward to assist in obscuration. (Obscure)

- The second and third tanks will have infantry squads mounted on them during movement. As the lead tank is firing, the second and third tanks will close the distance on the lead vehicle and dismount. The rest of the company will dismount from the trucks quickly. Two squads are mounted on the tanks to provide for faster dismounting from a vehicle. Dismounting from trucks is a long process, and two lead squads can assist by providing security.

- After the infantry squads dismount, they conduct bold flanks to the left and right of the obstacle. (Secure)

- Artillery is used to fix the enemy while squads maneuver to the flanks of the enemy.

- The commander moves forward so he can see the fight and establish control of the lead tanks.

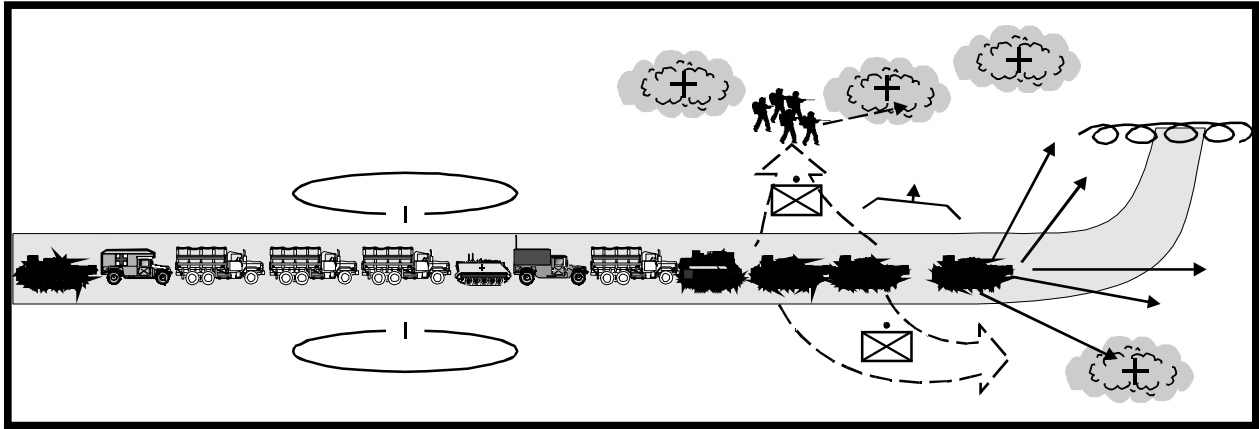
- The commander uses mortars and artillery to smoke the obstacles. Fire should be continuous through this maneuver. The commander is either firing smoke or high explosives, fixing the enemy as they withdraw.

- A security platoon establishes a 360-degree perimeter around the convoy. This close-in security protects the tanks from enemy attacking them from the rear or throwing satchel charges on the tanks.

- Tanks should be used to provide a base of fire as the maneuver platoon advances forward. The platoon in contact should control the tank fire by either communication or visual recognition signals as the squads advance.

- Tanks should be used off roads if possible. Ensure five meters is cleared of mines from the road before moving tanks. (VS-17 panels or guides will help tanks identify front-line traces of the maneuver unit.)

- Commander calls the engineers forward to assess the obstacle. (A good idea is to have a light infantry NCO with the engineers for control of the company plan.) (Reduce)



**Figure 1-3**

**TTP:**

- Unit moves to secure far side of the obstacle, destroying any enemy personnel. The use of tanks, artillery, and smoke should all be in play when the unit is conducting its bold flanks.
- Unit should apply suppress, obscure, secure, reduce (SOSR) techniques when conducting their breach. (*Note: Smoke is not an option at the breach.*)
- Mortars should set up to provide fires on the obstacle or flanks for the maneuvering unit. The maneuvering unit can assist the engineers by putting smoke at the obstacle as they pass it.
- If possible, the flanking unit provides far-side security for the breach; tanks can be used for near-side security.
- Tanks scan with thermals, providing security to the maneuver unit.
- The company commander establishes limit of advance (LOA) for the maneuvering unit.
- Security platoons provide near security for the convoy and should direct tank fire into enemy positions, if possible.

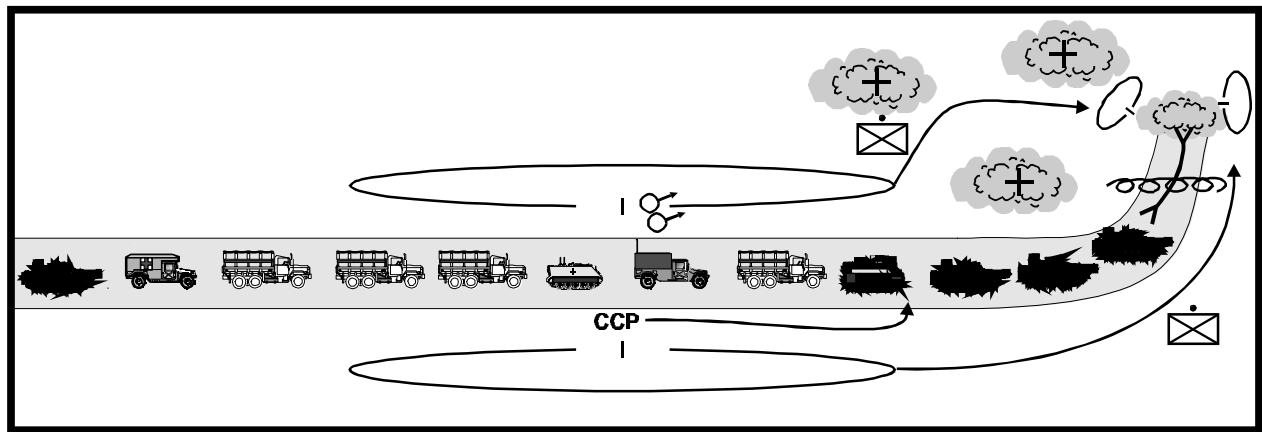


Figure 1-4

### TTP:

- The company leap-frogs platoons forward on the lead tanks. The security element now becomes the flanking platoon during the next engagement.
- Convoy moves out of the breach area a few hundred meters down the road. The convoy should no longer be under direct fire when the flanking unit loads up on the truck. If the convoy is being sniped, the company should employ smoke to cover withdraw.
- Stay-behind forces or ambush positions should be considered if caches have not been found.
- Casualties should move to a landing zone (LZ) or ground evacuated to the nearest medical treatment facility.
- Use a floating CCP to ensure proper security of casualties and medical assets.

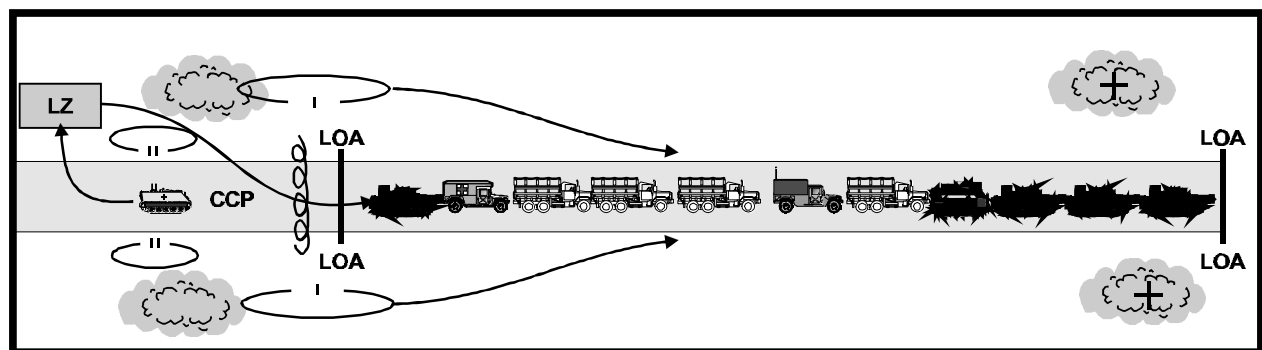


Figure 1-5

This technique fulfills **two** purposes. **First**, it provides excellent security for the route-clearance team. **Second**, it allows the route-clearance team the opportunity to look for, and destroy, enemy and caches while engineers are breaching a lane.



## CHAPTER 2

# MOVEMENT TO CONTACT

by CPT Curtis Roberts

*“Once you engage in battle, it is inexcusable to display any sloth or hesitation; you must breakfast on the enemy before he dines on you.” --Kai Ka’us ibn Iskander, Prince of Gurgan (10th century Persian prince). A Mirror for Princes, the Qabus Nama, translated by 'Reuben Levy in 1082<sup>1</sup>*

**1. GENERAL.** Since their reintroduction into the U.S. Army organization in the 1980s, light infantry units have seldom trained with tanks to conduct movement to contact (MTC). Currently, Fort Lewis, WA, is the only major Army installation where active duty armor and light infantry units are stationed together and continually train. The *potential enemy* that light infantry units usually train to conduct a MTC against is unconventional forces. These forces are generally poorly equipped, poorly organized, and lead such as those forces encountered in Panama and Haiti in the early 90s.

**Team Wolfpack’s mission:** *Conduct a movement to contact to destroy enemy forces in order to protect the force and facilitate area denial by a follow-on enemy force.*

Although the enemy was unconventional in nature and there was no hard intelligence, Captain CPT Kurtz chose to use the *approach march* technique. The rifle platoons of Team Wolf were approaching an intermediate objective--NAI 4 (named area of interest). The company’s 60mm mortar section, collocated with his company executive officer (XO), was now laid on Target AB2001 which was 300 meters east of NAI 4, a possible enemy squad hide site. Priority Target AB2101 was a battalion 81-mm mortar target plotted 300 meters south of NAI 4. Priority Target AB2401 was a 105-mm howitzer target plotted on a suspected enemy 82-mm mortar site. The task and purpose of our mortar fires is to fix the enemy by preventing a withdrawal to the south or east. The task and purpose of the supporting artillery battery is to suppress the only templated enemy mortar capable of ranging our forces to deny enemy ground forces indirect fire support.

<sup>1</sup> Peter Tsouras, *Warrior’s Words: A Quotation Book*, Arms and Armour; distributed in the USA by Sterling Publications Co., New York, N.Y., 1992, p. 19.

Standing by in *Attack Position Lair* was a combined arms fixing/finishing force. This force consisted of a tank platoon, a light infantry squad, and the company's antitank section (without antiarmor weapons); CPT Kurtz had placed this element under the command of his capable XO, 1LT Alvarado. *The finishing force was code-named "Panthers."*

1LT Alvarado was prepared to lead the Panthers down *Route Kill*, which was a wide dirt road west of NAI 4, to fix or finish any enemy encountered vicinity of NAI 4. The determination for the Panthers to fix or finish would be based on assessments of the rifle platoons in contact and suitability of the terrain to support maneuver by the tanks.

→ **A light engineer squad tasked to clear mines on Route Kill was attached to 2d Platoon on the company's right flank.**

→ **The brigade had two AH-58A Kiowa Warrior attack helicopters on station for the next two hours.**

*Dark green beads of sweat, like a black water stream of Sub-Saharan Africa, dripped from the tip of CPT Kurtz's nose and ran sluggishly down the map he was studying. Having been satisfied with his analysis and the concurrence of his first sergeant, ISG Robertson, he had just issued a FRAGO by radio to all elements of the company team. While he mentally reviewed the preparations, he listened to the report from 3d Platoon. The 3d Platoon had, as expected, made no contact during its bound forward on the left flank and was now astride phase line (PL) Car, in position to overwatch the advance of 1st Platoon (minus) and 2d Platoon (plus).*

***All elements acknowledged receipt of the report.***

CPT Kurtz watched the infantrymen to his front begin to advance cautiously uphill through the thickly wooded terrain. 1st Platoon (minus) was beginning its first bound up the gentle northern slope of the ridge that *PL Car* ran along. While 3d platoon maintained its overwatch position, 1st and 2d Platoons would alternate bounds forward to *PL Car* in 50-100 meter increments. Contact was anticipated in 1st platoon's zone of attack on or just beyond *PL Car*.

At 0945 CPT Kurtz and the Wolfpack company command group was halted behind 2d Platoon, which was overwatching 1st platoon's bound beyond *PL Car*, when the first rhythmic sounds of automatic weapons' fire echoed through the woods. Already behind cover, everyone within line of sight of the commander hugged a tree or fold of earth a little closer.

By the sound of the initial weapons fire, CPT Kurtz knew they were PK (Pulemet Kalashnikov) light machine guns and AK (Avtomat Kalashnikov) series assault rifles. The enemy had fired the first shots, and he felt his guts twist with that knowledge. Within seconds of the initial firing, it was joined in reply by a crescendo of rifle and squad automatic weapons fire, punctuated by the soft explosions of 40-mm high-explosive grenade rounds. ***1st platoon was in contact.***

Seconds later, the M240B machine gun teams of the platoons flanking 1st platoon commenced hammering the terrain 100 meters forward of 1st platoon with a deafening volume of fire. The company fire support officer (FSO) called for immediate suppression of *Target AB2401* (the suspected enemy 82-mm-mortar site), then targets AB2001 and AB2202, respectively, with an initial nonlethal round.

CPT Kurtz grabbed the radio handset from his company's radioman and prayed the contact report from the 1st platoon leader would be quick in coming. Throughout the company, other leaders were doing likewise. In accordance with standing operating procedures (SOPs), the company and platoon nets were cleared for traffic to be initiated by the unit in contact. CPT Kurtz was not disappointed.

***“Wolfpack Six, this is One-six. Fifteen to twenty enemy personnel, defending with automatic weapons from an erosion ditch at the end of a spur 100 meters to our south. We’ve got casualties. One-one element is pinned down. Enemy fire just got weaker. I can’t see right now, but they may be trying to break contact south and west.”***

***“Roger One-six, keep up the fire. Mortar fires to their south and east are inbound. Break, Wolfpack Five, this is Wolfpack Six. Start your attack with Panther down Route Kill, dismount the infantry, and deploy your tanks at SD410276 west of NAI 4, then tell me if they can assault to the east, over.”***

1LT Alvarado had already mounted the infantry on the tanks and ordered the tank crews to start their engines at the first sound of gunfire from the south. The company's 60-mm mortar section was continuing to drop rounds as Panthers screamed out of the assembly area at a breakneck pace and disappeared in a cloud of dust down *Route Kill*.

While Panther was rushing forward, the enemy fire had slackened on 1st Platoon. The 2d Platoon was now receiving fire. The previously not-engaged rifle squads replied immediately with an overwhelming volume of fire that concluded with the thunderous roar of 60- and 81-millimeter high-explosive rounds behind and to the east of the enemy. The confusion of combat was now impacting the leaders' ability to hear and clearly send radio traffic. The following message had to be sent twice:

***“Wolfpack Six, this is Two-six. Confirm, enemy is attempting to break contact to the west. I’m bounding Two-two on my right along with the engineers forward to provide security for Panther to dismount and deploy, mark my forward trace, and prevent the enemy from crossing Route Kill before Panther’s arrival.”***

When he finally understood what the 2d Platoon Leader was saying, CPT Kurtz concurred, told the FSO to repeat all fire missions, and contacted 1SG Robertson. Lieutenant Alvarado had already acknowledged monitoring Two-six's message.

***“Wolfpack Seven, this is Six. Do you think we’re near resolution, and if so, is CASEVAC (casualty evacuation) set?” “Six, this is Seven. Three-seven already has his platoon medic with a squad en route to my position. Band-Aid Six is standing by to push ground or air CASEVAC to us. I think we’ve got the upper hand, but the fat lady isn’t through singing yet.” “Roger Seven, out.”***

As usual, 1SG Robertson was on the same wavelength. CPT Kurtz hated casualties, but knew they would occur. 1SG Robertson would move heaven and earth to get his wounded men evacuated.

Panther was passing the engineer squad and 2d Platoon's right flank. The infantry dismounted from the tanks and followed them, using the tanks for cover as the tank platoon deployed straight off the march by executing their battle drill *for action left with enemy contact*.

A handful of enemy soldiers running toward the road stopped in their tracks. Clearly shocked by the appearance of the tanks, they scattered and fled into the woods. Most of them did not make it to cover before the tanks' 7.62-mm COAX machine guns felled them in their tracks. Poorly aimed enemy small arms fire ricocheted harmlessly off one of the tanks as the tanks with infantry in their wake advanced into the wood line. 1LT Alvarado was now behind the tank platoon leader's tank, talking to him on a TA-1 field phone attached to the back of the tank. The terrain and density of trees suited an advance by the tanks.

All elements of Team Wolfpack, except for 2d Platoon, had now lifted their fires. The company command net was cleared for the Panther and 2d Platoon traffic. The 2d Platoon walked their fires ahead of the tanks and infantry as Panther crept through the woods. Mortar rounds continued to fall, but were shifted by the 2d Platoon forward observer from his vantage point.

Fifty meters into the wood line, one of Panther's tanks fired a long burst from the 7.62-mm COAX machine gun into an area of dense vegetation. Three tanks to his left joined his fire, cutting down several enemy soldiers as they ran from the brush. The relentless advance of Panther continued until they had swept completely through NAI 4. Upon receipt of Panther's signal, the Wolfpack advanced forward to secure Panther's southern flank, then Panther resumed to establish security along *Route Kill*.

EPW and casualty collection teams set to work immediately. Team Wolfpack consolidated, reorganized, treated, and evacuated its casualties--one KIA (killed in action) and four WIA (wounded in action). A pre-planned resupply of ammunition, fuel, and water came forward in a cargo HMMWV that escorted and provided security for a ground ambulance. The company's mortar section bounded forward to establish a new firing position.

The Wolves and the Panthers had destroyed 18 enemy personnel during the 15-minute firefight, and had discovered caches of mines, food, water, and ammunition through its subsequent search. At 1200, the company was prepared to move out from NAI 4 to continue the approach march toward *Objective Heart* and *PL Bar*, its limit of advance.

## 2. DOCTRINAL REVIEW.

*"Get your principles straight, the rest is a matter of detail." --Napoleon (1769-1821)<sup>2</sup>*

The **movement to contact (MTC) is an offensive mission** designed to establish or regain contact with the enemy and immediately engage him where he is weakest. Upon contact, the unit develops the situation by determining the enemy strengths, the location of his flanks, gaps, and weaknesses, and his intentions. Following this, the unit executes a hasty or deliberate attack, bypass, or, when necessary, a defense. According to **FM 7-10, *The Infantry Rifle Company***, light infantry companies conduct movements to contact using two methods:

- **The search-and-attack technique.**
- **The conventional technique (approach march technique).**

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<sup>2</sup> Ibid, p. 337.

Both techniques rely on subordinate units fulfilling one or more of the multiple roles of the find, fix, and finish functions. Doctrinally, both techniques have advantages and disadvantages that must be assessed while deciding which to employ. One means of assessment is to compare the technique with the enemy's possible courses of actions (most likely and most dangerous). Selection of the appropriate technique must consider METT-T (mission, enemy, terrain, troops, and time available) and be judged by the nine Principles of War.

**The search-and-attack technique.** Doctrinally, this technique is best when the following conditions apply:

- **Enemy forces are unconventional in nature.** They typically operate in small teams using “hit-and-run” tactics to gain and maintain the initiative, only making contact when they feel they have the advantage.

- **The enemy conducts operations over a very large area and in a very decentralized manner, forcing friendly units to disperse to locate him and then mass to destroy him.**

Units conduct search and attack to destroy the enemy, facilitate force protection measures, area denial, and to collect information according to **FM 7-20, *The Infantry Battalion***. This technique uses small elements--platoons or squads--to search multiple areas simultaneously. Once the enemy is found, platoons and companies are used to fix and finish the enemy. Although it could definitely be used to establish or regain contact with a conventional enemy force, it would not facilitate immediate engagement of the enemy where he is weakest. For this reason, search and attack has never been regarded as a valid technique for use in a medium-intensity conflict. Also, when judged on how well it achieves the nine Principles of War, the search-and-attack technique is also found to be the least favorable technique in a low-intensity conflict. (See the “Feasibility Matrix” at Figure 2-1.)

**The approach march technique.** This technique is normally used when a company is conducting a movement to contact as part of a battalion task force (FM 7-10). Doctrinally, it is considered to be most feasible when the following conditions apply:

- **Enemy force is more conventional in nature.**

- **Enemy force follows a more structured order of battle and is more predictable in nature.**

- **Enemy force is more centrally located.**

- **Enemy conducts more centralized operations.**

As doctrinally described, the basic approach march is a feasible technique in a medium-intensity conflict in an environment against a more conventional enemy. The approach march can also be a highly effective technique against an unconventional force with the following modifications:

- **Zone of attack for the approach march must be limited in depth and width to clearly defined terrain features that will enhance the ability of a stay-behind force to accomplish area denial and provide the infantry with quickly achievable terrain-based objectives.** Breadth of the zone should be limited, yet great enough to prevent enemy forces from easily avoiding contact (side-stepping through maneuver).

→ Sufficient density of maneuver forces must be committed to this zone of attack to ensure complete coverage across the breadth of the zone to prevent enemy forces from slipping between subordinate maneuver units.

→ Infantry companies and platoons should select movement formations that achieve more width than depth for the following reasons:

- This lessens the number of units needed to cover the breadth of the zone.

- Decreases the time it takes to maneuver fixing and finishing forces forward at the platoon and company levels once contact is made.

→ Fixing the enemy can occur rapidly because other elements are already to the flanks of the element in contact, and direct fires to his front and both flanks can initially fix the enemy.

→ Bold flanking maneuvers are simplified. Other elements are already to the flanks.

→ Deployment in greater breadth facilitates use of the most secure movement technique, bounding overwatch, thus protecting the force.

→ Advancing in breadth gives the attacker an automatic geometric advantage in a firefight against a small insurgent force. Since the attacker is dispersed in width, the defender must disperse his fires toward the attacker to suppress him. This allows a massing of combat power at the lowest level.

→ Advancing in breadth reduces effects of enemy indirect fire.

→ Breadth enables companies to maintain contact with adjacent units to their left and right.

→ Breadth simplifies reading the battlefield (battle tracking) and it enhances command and control and speeds clearance of areas for employment of indirect, close air support (CAS), attack aviation, and direct fires.

→ Deployment of maneuver forces in greater breadth reduces the need for flank and rear security and an advance guard.

→ At the brigade task force and higher levels, allocate forces in a supporting effort to secure zones of attack that have been cleared. Otherwise, insurgency forces will fill the vacuum created by the passage of maneuver forces through these zones. Cleared zones become secured areas.

→ Detailed Intelligence Preparation of the Battlefield (IPB) will identify suitable terrain features that facilitate a supporting effort's execution of the area denial mission in and around secured areas with an economy of force. The offensive should be sequenced through zones of attack that allows the supporting effort to execute this mission with minimal forces, yet eventually result in maneuver forces converging on the insurgent forces.

A modified *approach march* technique, if conducted in accordance with the principles listed, should work well in a low-intensity conflict, and thus enable a conventional force to eventually destroy an insurgency. This is borne out by how well this technique fulfills the nine Principles of War. (See the "Feasibility Matrix" at Figure 2-1.) The *approach march* technique is suitable for use against both an unconventional force in a low-intensity conflict and a conventional force in a mid-intensity conflict. Now let's examine the employment of tanks with light infantry in a movement to contact mission against both a conventional and an unconventional enemy.

# FEASIBILITY MATRIX

<b>PRINCIPLES OF WAR</b>	<b>UNCONVENTIONAL ENEMY IN LIC</b>	<b>SEARCH AND ATTACK TECHNIQUE</b>	<b>MODIFIED APPROACH MARCH TECHNIQUE</b>
<b>OBJECTIVE</b>	TACTICAL -- ATTRIT U.S. FORCES AND MAINTAIN A LONG-TERM VIABLE FORCE. OPERATIONAL -- FORCE A U.S. PULLOUT. STRATEGIC -- OVERTHROW GOVERNMENT.	TECHNIQUE DOESN'T FACILITATE FORCE PROTECTION FOR ENEMY STILL HAS ACCESS TO 360- DEGREE BATTLEFIELD, ONLY TEMPORARILY DENIES AN AREA TO THE ENEMY, COLLECTS INTEL OF SHORT-TERM VALUE.	TACTICAL OBJECTIVE IS TO CLEAR ENEMY IN ZONE BY DESTROYING, CAPTURING, OR FORCING THE WITHDRAWAL OF INSURGENT FORCES. OPERATIONAL OBJECTIVE IS TO DESTROY THE INSURGENT FORCE COMPLETELY.
<b>OFFENSIVE</b>	SEIZE THE INITIATIVE BY CHOOSING WHERE AND WHEN TO FIGHT. RETAIN THE INITIATIVE BY FORCING U.S. FORCES TO REACT AND SETTING OPTEMPO. EXPLOIT INITIATIVE BY ATTACKING AN OBSERVED WEAKNESS UNTIL STOPPED, DISINFORMATION, and MEDIA COVERAGE.	TECHNIQUE ALLOWS ENEMY TO RETAIN INITIATIVE BY AVOIDING OR BREAKING CONTACT BEFORE FIXING AND FINISHING. FORCES CAN DESTROY HIM, LEAVING HIM FREEDOM TO MANEUVER AND MASS AS HE WISHES ON TACTICAL AND OPERATIONAL LEVELS.	SEIZES THE INITIATIVE BY SHAPING THE BATTLEFIELD. SECURING THE CLEARED ZONES OF ATTACK ELIMINATES NEED TO FIGHT 360 DEGREES, RETAINING THE INITIATIVE. EXPLOITS THE ENEMY'S INABILITY TO RAPIDLY MASS AND SLOWLY DESTROYS THE INSURGENCY.
<b>MASS</b>	MASS COMBAT POWER BY SELECTIVE ENGAGEMENT OF LUCRATIVE TARGETS WITH INDIRECT FIRES AND ABILITY TO ASSEMBLE WIDELY DISPERSED MANEUVER UNITS DUE TO THEIR SMALL SIZE AND KNOWLEDGE OF TERRAIN.	ABILITY TO MASS FORCES TO FIX AND FINISH NORMALLY LIMITED BY SPEED INFANTRY MOVE THRU TERRAIN. ENEMY FREQUENTLY FOUND BY CHANCE CONTACT, INFLECTS CASUALTIES AND BREAKS CONTACT, UNLESS THEY FEEL THEY CAN DESTROY FINDING FORCE, THEN LEAVE AREA.	ACHIEVES MASS INSTANTANEOUSLY AT THE POINT OF CONTACT WITH DIRECT FIRES, AND FACILITATES RAPID EMPLOYMENT OF INDIRECT, CAS, ATTACK AVIATION, AND NAVAL GUNFIRES ON INSURGENT FORCES, AND SUPPRESSES THEIR LIMITED INDIRECT SYSTEMS WITH COUNTER-BATTERY FIRES.
<b>MANEUVER</b>	SMALL UNITS ARE WIDELY DISPERSED OVER A LARGE AREA CREATING A 360-DEGREE BATTLEFIELD-FACILITATING, FLEXIBLE APPLICATION OF COMBAT POWER, ENHANCING SURVIVABILITY AT THE TACTICAL AND OPERATIONAL LEVELS PLACING U.S. FORCES AT A DISADVANTAGE.	THIS TECHNIQUE MEANS FIND, FIX, AND FINISH ELEMENTS MUST BE PREPARED TO FIGHT A 360-DEGREE BATTLE, STILL ALLOWING THE ENEMY FREEDOM TO MANEUVER. THIS DOES NOT PLACE ENEMY AT DISADVANTAGE AND ALLOW FLEXIBLE APPLICATION OF COMBAT POWER.	PLACES THE WIDELY DISPERSED ENEMY UNITS IN A DISADVANTAGEOUS POSITION, LIMITS ENEMY MANEUVER OPTIONS, AND ALLOWS FLEXIBLE APPLICATION OF COMBAT POWER UPON CONTACT.
<b>SIMPLICITY</b>	TACTICS ARE SIMPLE, EASY TO EXECUTE AT SMALL-UNIT LEVEL WHICH NEGATES NEED FOR COMPLEX CONTROL MEASURES. DECENTRALIZED EXECUTION AND LOW-TECH EQUIPMENT NEGATES SYNCHRONIZATION REQUIREMENTS.	REQUIRES INTRICATE PLANNING, COORDINATION, AND CONTROL MEASURES. CHANCE OF FRATRICIDE IS EXTREMELY HIGH. I.E., CLEARANCE OF FIRES IS DIFFICULT DUE TO DENSITY OF FORCES ONCE FIND, FIX, & FINISH FORCES ARE IN THE SAME AREA.	SIMPLIFIES THE BATTLE AT ALL LEVELS, REQUIRES FEWER CONTROL MEASURES, BY CREATING A MORE LINEAR BATTLEFIELD. FACILITATES BETTER BATTLE TRACKING, COMMAND, CONTROL, COMMUNICATIONS, AND CLEARANCE OF FIRES.
<b>SURPRISE</b>	THEY STRIKE THE ENEMY AT THE TIME AND PLACE OF THEIR CHOOSING, OFTEN IN A MANNER FOR WHICH CONVENTIONAL FORCES ARE UNPREPARED.	ENEMY MOST FREQUENTLY FOUND BY CHANCE CONTACT. SURPRISE IS SELDOM ACHIEVED BECAUSE TIME IT TAKES TO MASS FIXING AND FINISHING ELEMENTS AFTER THE ENEMY IS FOUND ENABLES ENEMY TO BREAK CONTACT.	FACILITATES RAPID BOLD FLANKING MOVEMENTS AT THE PLATOON AND COMPANY LEVELS. PLACING THE ENEMY AT A DISADVANTAGE BEFORE HE CAN EFFECTIVELY REACT. USE OF LIGHT/HEAVY AND AIR ASSAULT FINISHING FORCES WILL ALSO ACHIEVE SURPRISE.
<b>ECONOMY OF FORCE</b>	USE OF MINES ON LINES OF COMMUNICATION, TRUCK BOMBS, TERRORIST ATTACKS, PROTESTS OF U.S. INVOLVEMENT, AND INDIGENOUS INTELLIGENCE COLLECTION METHODS ARE ALL HIGH PAY-OFF ACTIONS THAT REQUIRE MINIMUM ALLOCATION OF COMBAT POWER	USE OF A SMALL NUMBER OF FINDING UNITS RESULTS IN INSUFFICIENT AREA COVERAGE, ENABLING ENEMY TO AVOID DETECTION. USE OF NUMEROUS INTEL ASSETS SELDOM EFFECTIVE. INCREASING FINDERS WEAKENS FIX AND FINISH FORCES, COMPLICATES C <sup>2</sup> FURTHER.	SECURING CLEARED ZONES ELIMINATES NEED TO RECLEAR AN AREA. THIS IS A LONG-TERM ECONOMY OF FORCE ACTION. EXTENSIVE OBSTACLES, BARRIERS, SURVIVABILITY POSTIONS, EARLY WARNING, AND INTELLIGENCE ASSETS MITIGATE SIZE OF FORCE NEEDED TO SECURE AREAS.
<b>UNITY OF COMMAND</b>	DECENTRALIZED EXECUTION OF SIMPLISTIC TACTICS REQUIRES UNITY OF COMMAND AT THE LOWEST LEVEL AND IS THEREFORE EASILY ACHIEVED. EVEN WHEN INSURGENT MANEUVER FORCES MASS, IDEOLOGY AND STRICT CHAIN OF AUTHORITY ENSURE UNITY.	ALTHOUGH FINDING IS DECENTRALIZED, CONTROL LINK BETWEEN FINDERS AND FIXING/FINISHING FORCES REQUIRES HIGHLY CENTRALIZED CONTROL AND COORDINATED EMPLOYMENT OF COMBAT POWER MULTIPLIERS THAT STRETCHES EFFECTIVE LIMITS OF COMMANDERS AND STAFFS TO SYNCHRONIZE.	SIMPLISTIC CONCEPT FACILITATES DIRECTING AND COORDINATING THE ACTION OF ALL FORCES TOWARD A COMMON GOAL OR OBJECTIVE.
<b>SECURITY</b>	KNOWLEDGE OF TERRAIN AND ARRANGEMENT ON THE BATTLEFIELD ENHANCES TACTICAL SECURITY OF SMALL UNITS. SECURITY ENHANCED BY ABILITY TO BLEND WITH INDIGENOUS POPULATION. LOW-TECH APPROACH EQUALS FEWER OPSEC REQUIREMENTS.	TECHNIQUE MEANS MANEUVER FORCES MUST FIGHT ON A 360-DEGREE BATTLEFIELD, WHICH CREATES GREATER SECURITY REQUIREMENTS TO FULFILL. THIS DISPERSES COMBAT POWER, AND DEGRADES EFFECTIVENESS OF FORCES OVER TIME.	SIGNIFICANTLY REDUCES SECURITY REQUIREMENTS BECAUSE THE BATTLEFIELD HAS BEEN RESHAPED FROM A 360-DEGREE BATTLEFIELD INTO A MORE LINEAR BATTLEFIELD. MOVEMENT FORMATIONS AND TECHNIQUES PROVIDE SECURITY FOR UNITS CONDUCTING MOVEMENT TO CONTACT.

Figure 2-1

### 3. PLANNING.

*Planning is everything -- Plans are nothing. --Field Marshal Helmuth Graf von Moltke (1800-1891). (Sign posted above the entrance to the Joint Staff, Department of Defense, the Pentagon.)*<sup>3</sup>

Although no plan remains completely intact following first contact with the enemy, the basis for success or failure of an operation is established during the planning process. The plan must be simple, flexible, and attempt to achieve the nine Principles of War.

Unfortunately, there is a lack of knowledge in the light infantry forces concerning the employment of other combat arms, and this is especially true with respect to armor. In the light infantry community, there has been a tendency to believe that our troops are equal to any task set before them. Light infantry and tanks seldom train together.

The hard combat lessons learned in World War II should govern the combined arms employment of light infantry and tanks. There are two excellent books available on the employment of tanks with infantry that should be required reading for all armor and infantry officers:

● ***Achtung - Panzer!*** (English Translation) by Major General Heinz Guderian, published in 1992 by Arms and Armour Press.

● ***Busting the Bocage: American Combined Arms Operations in France, 6 June - 31 July 1944***, by Captain Michael D. Doubler, published in November 1988 by the Combat Studies Institute of the U.S. Army Command and General Staff College at Fort Leavenworth, KS.

#### **Issue 1: *How does the addition of armor affect IPB for the light infantry commander?***

**Discussion:** The *approach march* technique of a MTC mission can be conducted against a conventional or an unconventional force. When planning to conduct a MTC mission, leaders must consider the capabilities, limitations, and likely courses of action available to the enemy. A conventional force normally has greater anti-tank capabilities, may have its own armor assets, normally fights a more linear battle, and will probably fight along lines of communication (LOCs). An unconventional force has limited anti-tank assets and attempts to conduct a very decentralized fight on a 360-degree battlefield. This force has no significant LOCs to protect, but will probably attempt to interdict friendly forces' use of LOCs with mines, ambushes, and indirect fires. An unconventional enemy may be quite willing to make contact with infantry, but will avoid contact with infantry accompanied by tanks, in many cases. If an unconventional enemy knows the infantry is approaching with tanks, contact with the enemy will be difficult to establish. A conventional enemy with its own armor assets is more likely to make contact with **friendly** infantry and tanks and can inflict considerable damage on a light infantry unit unaccompanied by tanks.

The addition of tanks impacts development of the MCOO (Modified Combined Obstacle Overlay). Reconnaissance with attention to the terrain, density of vegetation, and soil conditions are important considerations. Tanks are limited in the types of terrain they can traverse, but can cover great distances in a shorter period of time than the infantry.

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<sup>3</sup> Ibid, p. 323.

**TTP:**

- **Recognize the threats posed by the enemy force to the light infantry and to the tanks.** Tanks have capabilities that will enhance protection of the infantry and vice versa.
- **Identify enemy vulnerabilities to determine exploitable weaknesses to achieve success.**
- **Consider how the enemy will react to the presence of friendly infantry with armor, infantry alone, and armor alone.**
- **Suitable Terrain.** Identify suitable terrain through the IPB process as practical/available for the maneuver of the tanks and the infantry.

**Issue 2:** *How is the light infantry commander's plan affected by the addition of a tank platoon or tank section?*

**Discussion:** Tanks provide the light infantry commander with a considerable new range of capabilities.

**Tank Advantages:** The M1 Abrams series tanks possess lethal firepower; a platoon of these tanks has more firepower than a light infantry company. The M1 tanks have five killing systems:

- 120-mm main gun
- 7.62-mm COAX machine gun
- 7.62-mm loader's gun
- 50-caliber machine gun

Because of its size and weight, the tank alone as a vehicle can clear enemy troops in bunkers and trenches.

Tanks can move rapidly under a variety of terrain conditions. They have enhanced target acquisition systems, organic air defense, can provide two types of smoke (limited) for point obscuration, and, when equipped with the mine plow or mine roller, enhance mobility. Tanks can transport infantry and critical supplies. Tanks can provide mobile cover from small arms for light infantry. Because of its height, the M1 series tank provides an excellent observation platform. They can breach obstacles, kill quicker, and mass combat power much faster than a light infantry company.

**Tank Disadvantages:**

- They are vulnerable to attack in restrictive terrain.
- The M1 cannot traverse certain types of terrain.
- They emit a significant audio and visual signature on the battlefield.
- Tanks require a greater amount of logistical and maintenance support.
- They have limited air defense capability.

### **Light Infantry Advantages:**

- Light infantry can traverse any terrain regardless of slope, density of vegetation, or soil conditions.
- Disciplined light infantry units have a low signature on the battlefield, enabling them to get close to enemy prior to contact (terrain and light conditions depending).
- They can operate with greater dispersion in restrictive terrain, and can pose a significant threat to enemy armor in restrictive terrain.
- Disciplined light infantry units inherently have greater security in restrictive terrain.
- Light infantry requires a small amount of logistical and maintenance support.

### **Light Infantry Disadvantages:**

- Light infantry units are vulnerable to any weapon on the battlefield.
- They have limited anti-armor and air defense capability.
- Light infantry is slow.

**Immediately integrate the tank platoon leader into the planning process.** He is the subject matter expert on employment of the tanks. It is critical that the tank platoon leader and his tanks arrive at the infantry unit they are supporting before the planning process. The later the tank unit arrives during preparations for combat, the more uncoordinated and desynchronized their actions will be during execution of the movement to contact. Receipt of the supporting tank unit to the light infantry unit as it is crossing the line of departure benefits no one except the enemy.

The tank platoon leader must keep the light infantry commander informed at all times about his unit's mission-capable status, supply status, crew status, weapons status, and any special equipment available (such as mine plows and rollers). These capabilities must be factored into planning.

There is an inherent difference between unconventional and conventional enemy forces. Their differences lie with the type of armor threats they pose, their vulnerabilities, and their likely reaction to the presence of friendly armor. The tactics and techniques utilized in executing an **approach march** against either of these type forces should differ.

The addition of armor creates other planning considerations for the light infantry commander. He must plan and allow time for:

- **Full-force rehearsals (or at least key leaders and special teams' rehearsals).**
- **Standardizing reporting formats.**
- **Determining the maintenance and logistical support requirements for the tanks.**
- **Considering BDAR (battle damage assessment and recovery), resupply, and CASEVAC.**

→ **Resupply of the tanks' ammunition is often left to the tank platoon's parent unit.** This often means the tanks must wait for their parent unit to resupply 7.62-mm ammunition when 7.62-mm ammunition could have been delivered with the light infantry unit's LOGPAC (logistical package).

**TTP:** The plan should protect the force by capitalizing on the tanks and the infantry strengths based on the enemy threats, enemy reactions, and suitability of terrain.

→ **It must exploit the enemy's weakness.**

→ **It should provide for rapid mutual support.**

→ **The plan should fulfill three requirements for a decisive attack involving light infantry and tanks:**

- **Use suitable terrain for maneuver of infantry and tanks.**

- **Achieve surprise (if possible).** The tactical mobility of armor to rapidly reach points on the battlefield lends itself particularly well to achieving surprise.

- **Mass combat power to exploit a weakness or destroy the enemy once contact is made.** The range of tank weapon systems and their speed facilitates massing direct fires if terrain allows.

→ **The plan must *delineate finding, fixing, and finishing roles*.** Some subordinate elements may have dual roles, i.e., finding and fixing. For example, if the terrain allows maneuver by tanks to close with and destroy the enemy, they should be part of the finishing force. On the other hand, if the terrain prevents maneuver by tanks to close with the enemy, employ them as part of a fixing force.

→ **Any plan should incorporate, but not solely rely on, tanks in breaching operations.**

→ **Plan for BDAR and CASEVAC with respect to tanks and crews.** Use tanks for CASEVAC or force protection of CASEVAC assets. Leaders must consider the loss of their combat power to the unit.

→ **Resupply should be a major consideration in the planning process.**

**Issue 3:** *How are fire planning and control measures impacted by the addition of tanks?*

**Discussion:** The addition of tanks significantly affects fire planning with the increased range and lethality of their weapon systems. The tank crew can employ up to four of its weapon systems simultaneously. The tank possesses enhanced target acquisition systems and is an excellent observation platform in certain types of restrictive terrain from which direct and indirect fires might be controlled. The light infantry commander must determine who is going to control the tanks. Does he place them in operational control (OPCON) to a platoon (i.e., his main or supporting effort) or retain control himself? Leaders should establish engagement criteria, based on the situations, for both the tanks and the infantry. In addition, leaders must establish engagement priorities for every weapon system on the tanks and in the infantry company. Control measures should be as follows:

→ IFF (Identification, Friend or Foe) measures on the infantry and on the tanks should be visual and thermal for day and night operations to mark friendly positions and avoid fratricide.

→ Visual signals using hand-and-arm signals, pyrotechnics; use M203 marking rounds and tracer fire to mark targets and control fires.

→ Develop communications plans using the FM radio and field-expedient field telephone. The plan must address the means and method for infantry and tanks to communicate with each other from the squad level on up.

If the tanks are to be collocated with the infantry during the *approach march*, establish set locations for the tanks and the infantry in the unit's movement formation. This will assist in controlling movement and fires, preventing fratricide, and facilitating communication and mutual support.

**TTP:** The commander must decide who will control the tanks and must key his infantry leaders' locations in relation to the tanks to facilitate control. If the commander cannot be located with the tanks, such as in a finishing force where tanks are held back in an attack position, place the company's executive officer in command of the finishing force to facilitate control:

→ Base engagement priorities on weapons' capabilities versus enemy vulnerabilities to those weapons.

→ Establish engagement criteria to assist in identifying decision points, i.e., when to commit the finishing force based on the enemy threat.

→ Establish a plan for action on contact that delineates support by fire and assault responsibilities for the tanks and the infantry. Base the plan on the threat and the element that will make the initial contact.

→ Establish and resource IFF measures prior to deployment:

- IR light sources.

- VS-17 panels.

- Thermal tape.

- When practical, IFF markings should be 360 degrees, day and night.

- Supply infantry and tanks with pyrotechnics, marking rounds, and tracers.

All soldiers must understand the meaning of each signal.

→ Develop a detailed communications plan. Radio discipline is critical if the communications plan involves having more than five or six stations on the command net.

→ Use of field expedient field telephones on tanks enables squad leaders to talk to tanks.

→ Incorporate tank commanders as forward observers for controlling indirect fires.

#### 4. PREPARATION.

*“Four brave men who do not know each other will not dare to attack a lion. Four less brave, but knowing each other well, sure of their reliability and consequently of their mutual aid, will attack resolutely.” --Battle Studies, by Colonel Charles Ardnant du Picq, 1880<sup>4</sup>*

A unit sets the conditions during its preparations for combat. To establish conditions for success, preparations at every level within a unit must begin with a warning order. Squad and platoon leaders identify what collective tasks need rehearsing. Soldiers should rehearse individual tasks. Platoon sergeants should identify what equipment and classes of supply are required. The conditions are primarily set by:

**Conducting key leader backbriefs following the order.**

**Conducting rehearsals.**

**Conducting inspections.**

**Preparing equipment and supplies.**

**Coordinating for support with adjacent units.**

**Executing a rest plan.**

**Executing additional reconnaissance, beginning movement, and disseminating intelligence updates.**

**Backbriefs** ensure that key leaders understand the commander’s intent and scheme of maneuver. They also provide the commander with immediate feedback and update him on subordinate units’ status.

The importance of **rehearsals** involving tanks and light infantry cannot be overemphasized. Because light infantry and armor tank units seldom train together on a frequent and thorough basis, these units, when task-organized, must conduct combined arms training during their preparations for combat.

Time is often short. Realistically, for most operational deployments, if units in a brigade task force were to be deployed into combat, they would normally spend time in an Intermediate Staging Base (ISB). The ISB is where some quality rehearsals could occur that would set the conditions for success. The Joint Readiness Training Center (JRTC)’s ISB is where the light infantry forces stage, but the armor units attached to the light brigades stage out of North Fort Polk. Integrated rehearsals seldom take place due to space limitations at the ISB and limited funds allocated to transport the tanks back and forth from North Fort Polk to the ISB.

Units also fail to conduct integrated rehearsals because they are not made a priority. Commanders must prioritize rehearsals. The timing of sub-unit and special teams’ rehearsals must allow for a maximum amount of time for integrated, combined arms, full-force rehearsals. For a movement to contact using the *approach march* technique, actions on contact (seven forms of contact) rehearsals and actions on the objective (march and intermediate objectives) rehearsals are usually the most important.

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<sup>4</sup> Ibid., p. 428.

Full-force rehearsals are important because every plan contains flaws, many of which are not discovered until someone attempts to execute the plan. If the person responsible for executing a critical task is not involved in the rehearsal, the flaw will probably go undiscovered until it is being executed under fire. Full-force rehearsals allow leaders to see where everyone will be in relation to each other during critical portions of the mission, which will confirm or result in refinement of fire plans and control measures. If possible, conduct these full-force rehearsals on terrain similar to that of the actual operation.

Integrated combined arms rehearsals are key for several reasons. This is probably the only opportunity that the tanks, infantry, engineers, mortars, and fire supporters have to learn something about each other, develop confidence in each other, *“becoming sure of their reliability and consequently of their mutual aid.”* Combined arms rehearsals are the only way to confirm that the plan is synchronized. The communications plan will also receive a good shake-out in a combined arms rehearsal.

Time management of sub-unit and special teams’ rehearsals allows more time for integrated rehearsals. Rehearsals of squad, fire team, and special teams’ collective tasks can be conducted during or even prior to issuance of the unit’s operation order. Train individual tasks during this period.

Delegate responsibility for these rehearsals down to the senior team leader if squad leaders must attend the operation order. This is a prime example of empowering junior NCOs, good time management, and developing leaders. Tank crews should rehearse crew drills and conduct maintenance before integrated rehearsals.

If the tactical situation is not conducive to conducting full-force rehearsals, then an integrated, combined arms, key leader rehearsal must suffice. Leaders must try to involve as many special team personnel as possible.

**Inspections** are a leader responsibility. Senior leaders should spot-check soldiers. Conduct spot-check inspections at all levels. Spot checks gauge the status of equipment, the dissemination of information, and evaluates the morale of the troops. If the commander wishes to inspect the equipment of a tank unit, the senior leader from that tank unit should assist the commander. There should be initial and final inspections, since initial inspections will inevitably discover deficiencies that must be corrected before crossing the line of departure. Involve the company command section (commander, first sergeant, and executive officer) in these spot checks. The commander cannot be everywhere at once, and the executive officer and first sergeant may have to assume command of the company at some point during the mission.

**Coordinating for equipment, supplies, and maintenance** are responsibilities of the commander’s left and right arms--the XO and the 1SG. With tanks attached or operationally controlled to the company, the XO or 1SG should be passing maintenance and supply issues concerning the tanks to their higher headquarters. The tank unit leader should provide the XO and 1SG with a list of every requirement he has, regardless of whether the light infantry unit will be able to fill the bill. They must be made aware of the need. The XO and 1SG should assist in resupplying the tanks with items they can obtain. For example, tanks supporting a light infantry unit will have a higher consumption rate of 7.62-mm ammunition. If the light infantry unit’s LOGPAC is more responsive and frequent than the LOGPAC from the tanks’ parent unit, coordination should be made to provide the tanks with this ammunition via the light infantry unit’s

LOGPAC. Both the XO and ISG ensure the necessary coordination is conducted for needed equipment and supplies, but neither of them should be involved in physically procuring or delivering these supplies, if at all possible. The XO and ISG conduct coordination with adjacent units if the commander is unavailable.

**The unit should conduct additional reconnaissance** if there are nagging questions concerning the enemy or the terrain. For example, in the zone of attack there are several streams, all the roads are unimproved, and there has been recent heavy rainfall. Reconnaissance may be necessary to confirm whether ground conditions will support movement of the tanks through low ground and across streams.

**TTP:** Task-organize and receive all attachments early. This gives subordinate leaders a focus, enabling them to identify collective and individual tasks to rehearse and spot-check equipment and supplies needed for the mission. Rehearsals should begin at the lowest level following receipt of a warning order.

→ **Prioritize rehearsals.**

→ **Time management of sub-unit rehearsals allows more time for full-force, combined arms rehearsals.**

→ **Rehearsals should be with full equipment on terrain similar to that of the actual area of operations.**

→ **Delegate responsibilities for sub-unit rehearsals to lowest level possible.**

→ **Inspect the entire unit.** Have tank commanders assist as subject matter experts.

→ **Use backbriefs and rock drills following the operation order and before company rehearsals to enhance leaders' retention of knowledge during rehearsals.**

→ **Load limited special equipment and supplies on the tanks.** This will lighten soldier load, and because special equipment and supplies are on the tanks, these items will become more readily available for the soldiers. Use common sense when determining what equipment to place on the tank. For example, placing some SKEDCO litters on tanks might be a good idea, but the infantry platoons should still have some being carried by soldiers.

→ **If the plan includes soldiers riding on the tanks at some point during the operation, rehearse this before full-force combined arms rehearsal.**

## 5. EXECUTION.

*“There are two kinds of infantry: men who have gone into action with tanks, and men who have not; and the former never want to go into action without tanks again.”*

**--Monsieur Loucher, French Minister of Munitions, January 1919<sup>5</sup>**

Once planning and preparations are complete, the outcome of the battle is already half decided. It is now time to execute. *The modified approach march technique* at the company level should be executed with infantry companies and platoons moving in formations that achieve more breadth than depth for the following reasons:

**It lessens the number of units needed to cover the breadth of the zone.**

**It decreases the time it takes to maneuver fixing and finishing forces forward once contact is made.**

**Fixing the enemy and directing fires to his front and both flanks can fix an enemy.**

**Bold flanking maneuvers are simplified. Other elements are already to the flanks of the unit in contact.**

**Deployment in greater breadth facilitates the use of the most secure movement techniques.**

Advancing in breadth gives the attacker an automatic geometric advantage in a firefight against a small insurgent force. Since the attacker is dispersed in width, the defender must disperse his fires toward the attacker to suppress him. This technique also reduces effects of enemy indirect fire which, if accurate, is more destructive on a company deployed in depth attempting to advance. Breadth helps companies maintain contact with adjacent units to their left and right. Breadth simplifies reading the battlefield, battle tracking, and, therefore, enhances command and control. It will speed clearance of areas for employment of indirect fires, CAS, attack aviation, and direct fires. This will occur as long as ground reconnaissance forces are not employed in close proximity to the maneuver forces conducting the approach march; i.e., in the current zone of attack. Deployment of maneuver forces in greater breadth than depth also reduces the need for flank and rear security and an advance guard.

### **The Company Team Modified Approach March Against an Unconventional Enemy.**

One basic requirement exists to effectively task-organize tanks with a light infantry company conducting a movement to contact--*suitable terrain*. Some factors in the proposed terrain will dictate where tanks can and cannot go. The terrain must facilitate armored maneuver. The following is a suggested task organization for such a force tasked to conduct a movement to contact against an unconventional enemy in restrictive terrain. Primary location in scheme of maneuver and tasks are listed under the units in italics.

**Suggested Task Organization:*****1st Platoon***

3 x Rifle Squads

FO Team

***2d Platoon***

2 x Rifle Squads

FO Team

***3d Platoon (+)***

3 x Rifle Squads

1 x Engineer Squad

FO Team

*Left Flank**Find & Fix**Engineers clear mines on road**inside right boundary**Center**Find & Fix**Right Flank**Find & Fix****Reserve (Finishing Force)***

Tank Platoon

AT Section

***Company Control***

CP &amp; Co FIST

60-mm Mortars

1 x Rifle Squad

*Attack Position**Prepared to Fix or Finish**Center**C<sup>3</sup>*

*The Rifle Squad is the Restrictive Terrain Reserve and has a be-prepared mission to conduct CASEVAC.*

**Note:** This suggested task organization is based on a light infantry company at full strength in personnel, of which there are very few currently in the Army. Most light infantry companies today have no personnel in their anti-tank sections and many have only two platoons with three squads or three platoons with two squads. Losses are inevitable in combat, but accomplishing any mission becomes increasingly difficult with personnel shortages before the mission even begins. If you were to subtract the AT Section and three rifle squads or one platoon from this suggested task organization, it immediately becomes apparent the maneuver options have become more limited. Additionally, security will become leaner, firepower is less, and the breadth of area this company team can effectively cover is decreased by one third.

**The modified approach march** technique uses infantry platoons to find the enemy, not tanks, squads, or fire teams. Infantry platoons possess sufficient organic firepower and numbers of personnel dispersed over a large enough area to survive chance contact and maintain contact with the enemy. Squads and fire teams by themselves are too vulnerable when separated by distance and difficult terrain. This separation and terrain will decrease their chance to survive contact initiated by the enemy.

Infantry squads do not have direct communications with indirect fire support. They must relay their request through their platoon headquarters to receive indirect fire support. Incorporating tank sections into or adjacent to platoon movement formations reduces the element of surprise. The guerrilla forces will hear their turbine engines long before they see the infantry with tanks and will probably avoid contact. If the insurgents choose to make contact, it will be on

ground of their choosing that will not facilitate teamwork between the infantry and the tanks. Placing tanks with the finding force is an option if the goal is to drive the enemy into a fixing force that is already in position or can rapidly reach a desired point on the ground. However, the element of surprise is reduced, and in the midst of densely vegetated, restrictive terrain, movement and reaction to danger are reduced.

**Complete actions on contact with consolidation, reorganization, and casualty evacuation.** Units must execute consolidation and reorganization rapidly. There may still be enemy in the area capable of requesting and directing indirect fire. If casualties are few and the enemy can be quickly searched, the company team should move away from the scene of the engagement to consolidate and reorganize. If casualties are heavy, the platoons with greater combat power should expand the security perimeter.

**Resupply** of ammunition or other supplies may be needed following the contact. Cross-leveling ammunition and other critical assets can alleviate shortages. Remove ammunition from KIAs and casualties requiring evacuation.

Extract the finishing force from the scene of the contact as soon as possible to prevent the enemy from discovering its composition and strength and developing an effective counterattack. Indirect smoke and smoke pots can assist in obscuring possible enemy observation of consolidation and reorganization. Leaders must focus on security during this phase of the operation. There is always a tendency for victorious soldiers to let down their guard.

Using the tanks with the finding elements will probably result in no contact, but the enemy will be forced to abandon that area of operations and could be driven into another company's or battalion's zone of attack. Employ other assets to support its execution.

If indirect fires are not available, attack helicopters could be used to fix a suspected enemy force while ground maneuver forces maneuver to find, fix, or finish the enemy. In addition, employ attack helicopters over suspected enemy mortar positions to deter the enemy from firing. Employ the tank/infantry force as a fixing force if the enemy is able to break contact.

The task organization and roles can be adjusted to fit the situation, for every operation is impacted by METT-T and OAKOC (observation and field of fire, cover and concealment, obstacles and movement, key terrain, and avenues of approach). If executed by well-trained, disciplined troops, it promises success against an unconventional force. It achieves mass and surprise, and capitalizes upon the strengths of infantry and tanks working as a team.

#### **The Company Team Modified Approach March Against a Conventional Enemy.**

Again, the basic requirement of suitable terrain is in effect. If the terrain does not support the employment of tanks, the enemy will not have armor there either. If the terrain supports armored maneuver, then task-organize the tanks with the infantry. However, against a conventional enemy force, the severity of the enemy threats posed against friendly armor and light infantry must be weighed. If the likelihood of encountering enemy armor is high, some or all of the tanks attached to an infantry company may need to advance with the infantry. Otherwise, the infantry advancing alone runs a high risk of making contact with enemy armor in-strength. Most light infantry companies are too understrengthed to man their anti-tank sections. Since the anti-tank sections go unmanned, seldom is anti-tank gunnery trained, and, therefore, there is little proficiency in the skills needed to execute that task. The armored element could possibly increase with the addition of the tank company commander's and/or XO's tanks. IPB at the battalion and brigade level is

responsible for identifying a need to increase the amount of armor attached to a light infantry company. The task organization from higher headquarters should provide the light infantry company with sufficient armor to maneuver against any enemy armor threat and protect the infantry. The commander should task-organize the tanks within the company team to provide flexibility.

Below is a suggested task organization to conduct a movement to contact against a conventional enemy in restrictive terrain, with two mobility corridors, in the company team's zone of attack. The commander has decided to show weakness on his right flank and strength in the center. His left flank is in extremely restrictive terrain--no armor or anti-tank assets are employed on this flank. Primary location in scheme of maneuver and tasks are listed under the units in italics.

#### **Suggested Task Organization:**

##### ***1st Platoon (-)***

2 x Rifle Squads  
FO Team  
FO Team

##### ***2d Platoon (+)***

3 x Rifle Squads  
1 x Engineer Team  
FO Team  
Tank Section

##### ***3d Platoon (+)***

2 x Rifle Squads  
1 x Engineer Team  
AT Section (-)

##### ***Left Flank***

*Find & Fix*

##### ***Center***

*Find & Fix*

##### ***Right Flank***

*Find & Fix*

##### ***Reserve (Finishing Force)***

Tank Section  
1 x Hvy Engr Sqd w/MICLIC  
1 x Rifle Squad  
2 x AT Teams

##### ***Company Control***

CP & Co FIST  
60-mm Mortars  
1 x Rifle Squad

##### ***Attack Position***

*Finish*

##### ***Center***

*C<sup>3</sup>/Rifle Squad is the Restrictive Terrain Reserve and is prepared to conduct CASEVAC.*

**Again, the infantry platoons are the finders and fixers.** Leaders should augment those platoons advancing along mobility corridors that facilitate armor movement with tanks or anti-tank weapons.

**Infantry platoons should have a healthy supplement of AT-4s.**

**They should have plenty of HC smoke if contact must be broken or obstacles must be breached instead of by-passed.**

**Carrying a few anti-tank mines might be advisable.**

**Employ hand grenade simulators.** They can create false anti-armor weapons signatures.

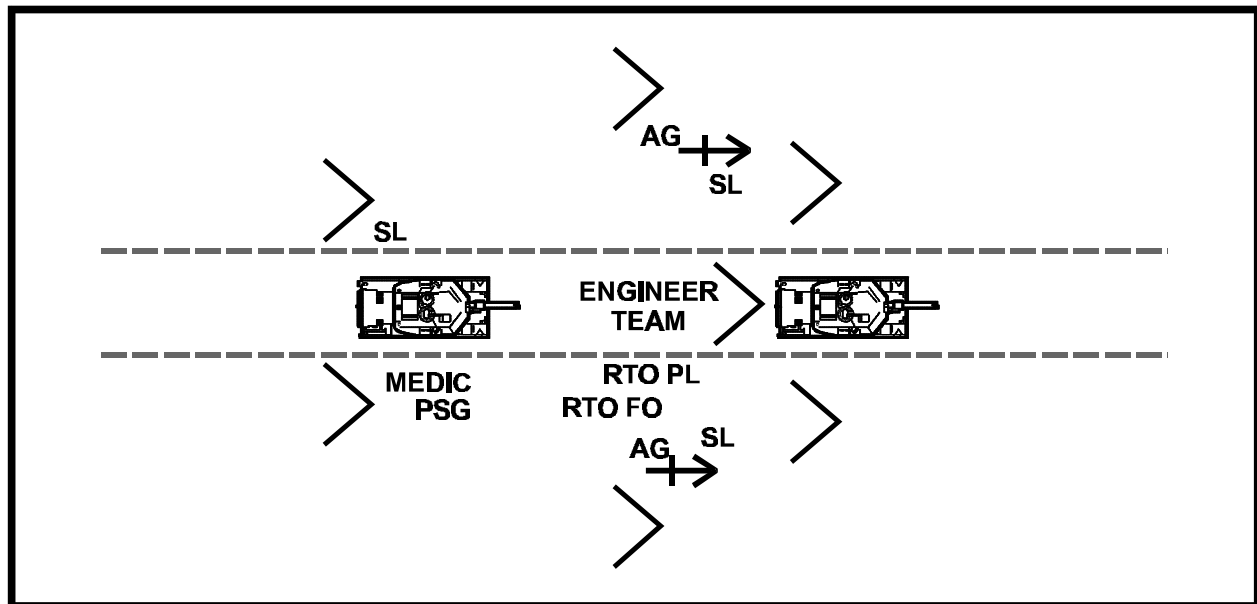
**Carry bangalore torpedo sections and C-4 Pop-and-Drop charges for breaching wire and destroying mines.**

**Use light engineer teams to mark or clear mines in the mobility corridors.**

**The tanks operate as sections; never use a tank by itself without another tank.** The tank section with the platoon in the center fulfills multiple roles:

- They can *find* the enemy with their enhanced target acquisition systems and increased observation due to their height.
- They can *fix* with four of their weapon systems.
- They can *finish* with any of their five weapon systems.
- They are mobile support-by-fire platforms that can suppress enemy targets while advancing with the infantry or remain static while fulfilling the same role. The tank section, with the center platoon, could be flexed to support the right platoon if the situation warrants and if it can be accomplished in a timely manner.

Movement formation for the center platoon with tanks might be as follows in Figure 2-2.



**Figure 2-2**

The tank section with the center platoon should have either the mine roller or mine plow or both. A conventional enemy that has broken contact with friendly forces will have the resources to place numerous tactical obstacles along narrow mobility corridors in restrictive terrain. The following scenario depicts one method for breaching operations involving light infantry with tanks. The light engineers in this scenario are occupied marking and destroying mines to the rear of the center platoon.

**Achieve surprise and mass by the retention of a reserve.** This reserve contains tanks, heavy engineers, and infantry. The heavy engineers should have a MICLIC (Mine-Clearing Line Charge, M58A3) to facilitate rapid breaching. Otherwise, maneuver of this element might be delayed. Incorporate infantry and anti-tank teams into the reserve because this force may have to advance beyond the three light platoons that are forward. The infantry provides protection against dismounted threats. The anti-tank teams could be of great use to the armor if the enemy counterattacks with armor and mechanized forces because they can destroy lightly armored vehicles of an enemy. This allows the tanks to focus on destroying enemy tanks. Since the enemy will hear the tank section with the center platoon, it is not necessary to keep the reserve in an attack position. The reserve can follow the company team's advance by one terrain feature or out of line of sight. Employment of the reserve is, as always, situational dependent.

#### **TTP:**

→ **Use every leader in the company.** The commander cannot be everywhere at once. Place the XO and 1SG in command of the company during training exercises. The commander mentors them through command of the company, so they will learn how he wants them to fight. The advantage of training these individuals is that both of them could be placed in charge of subordinate units if the need arises. The 1SG in this technique is normally near the commander, but not necessarily located with him. When the need arises, the 1SG moves to the commander's side to advise and assist him in controlling the company fight. If something happens to the commander, the 1SG can automatically assume command and control of the company because he is near or with the company command section.

→ **Task organization, equipment and special weapons, movement formations, movement techniques, and arraying of forces on the battlefield must account for terrain and the enemy.** Fight the enemy, not the plan.

→ **Incorporate the attachment leaders into the chain of command.** Doing this can prevent serious disruption of command and control during the execution of a mission. Do this at all levels.

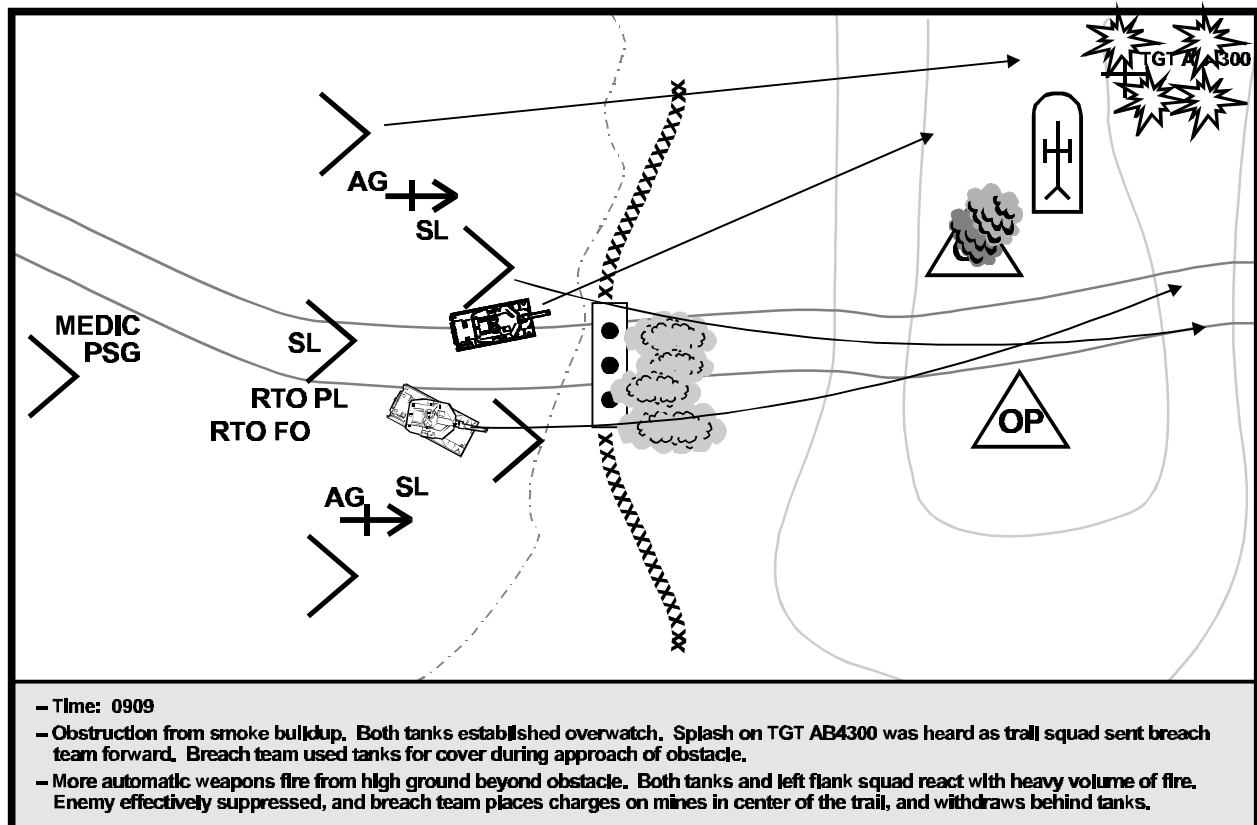
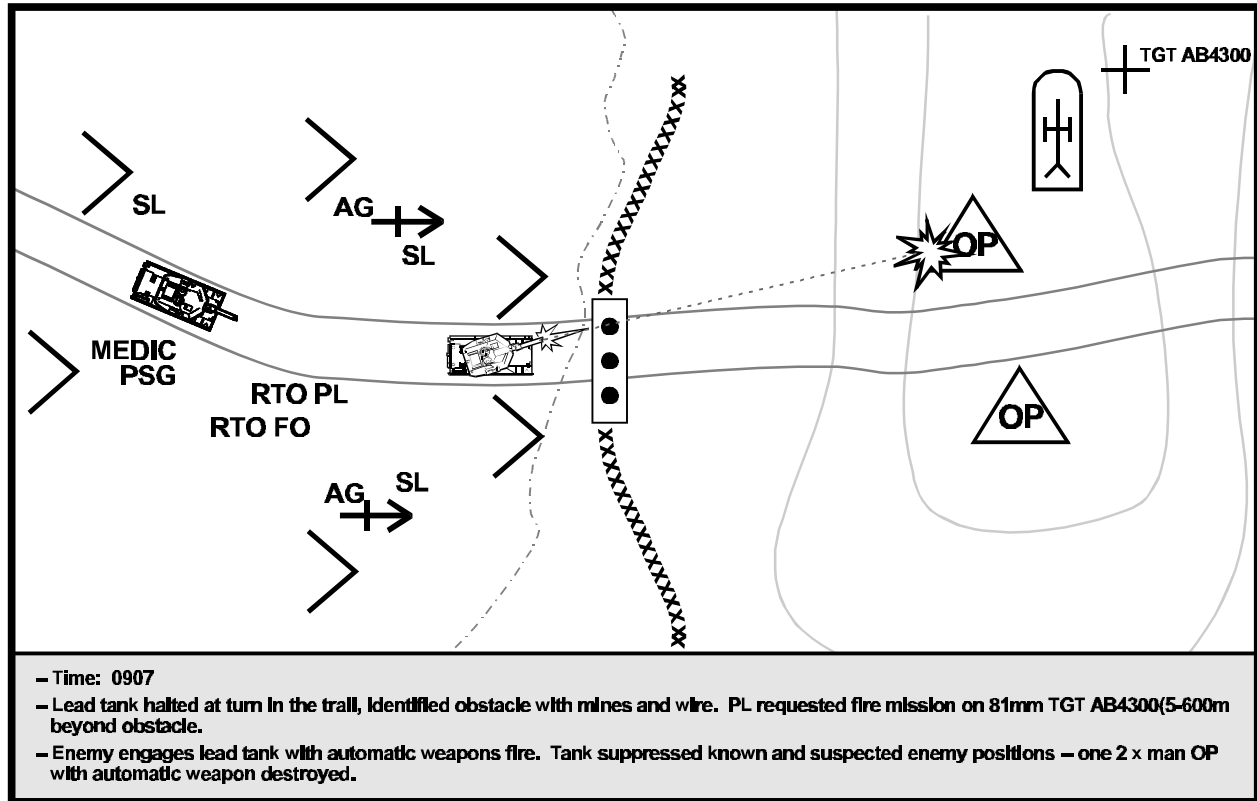
→ **Maintain a reserve.** The reserve should have a large percentage of the unit's combat power. Combat power does not equal numbers of personnel. Combat power is the destructive effects of fire. The goal is to wear the enemy down with forces deployed forward until the enemy is weak enough to overcome him with the reserve or finishing force.

→ **Have a plan for actions on the objective for every NAI, intermediate, and march objective in the zone of attack.** Plan should be flexible. A reserve provides that flexibility.

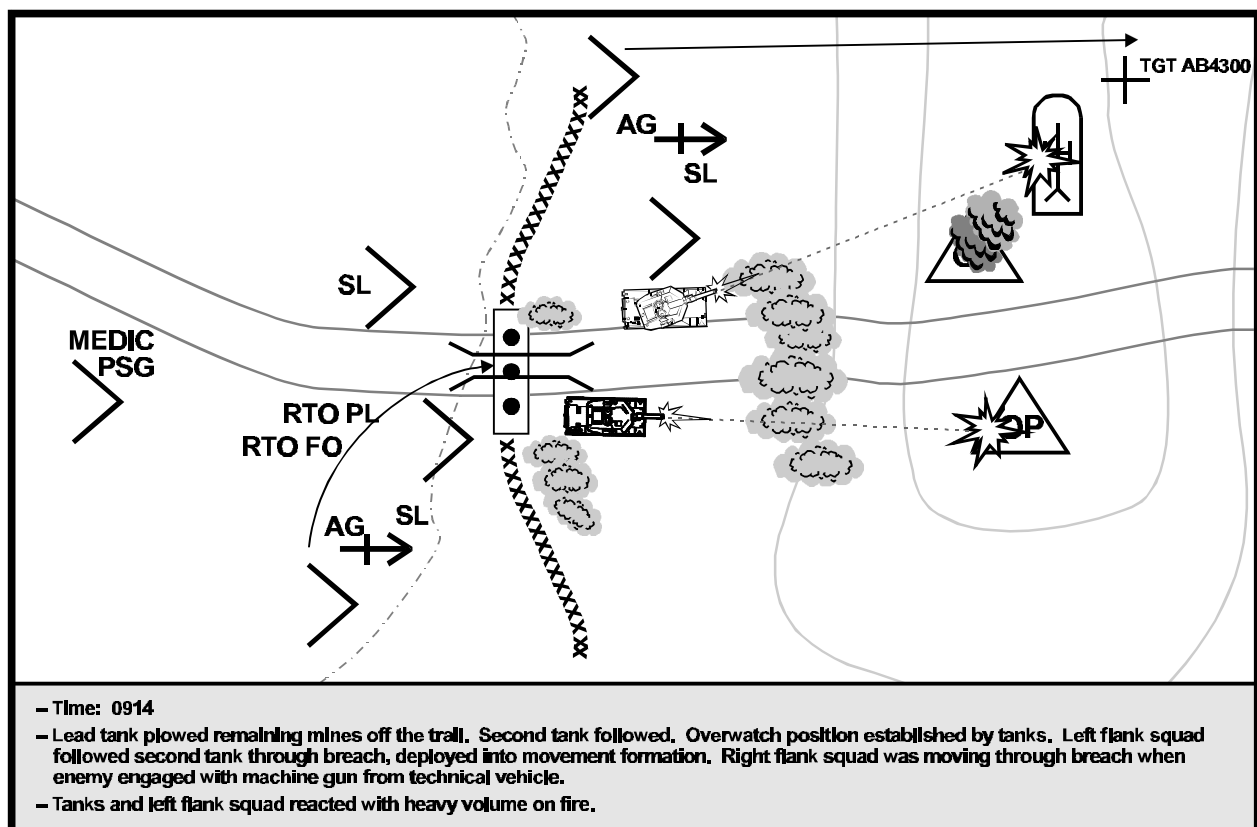
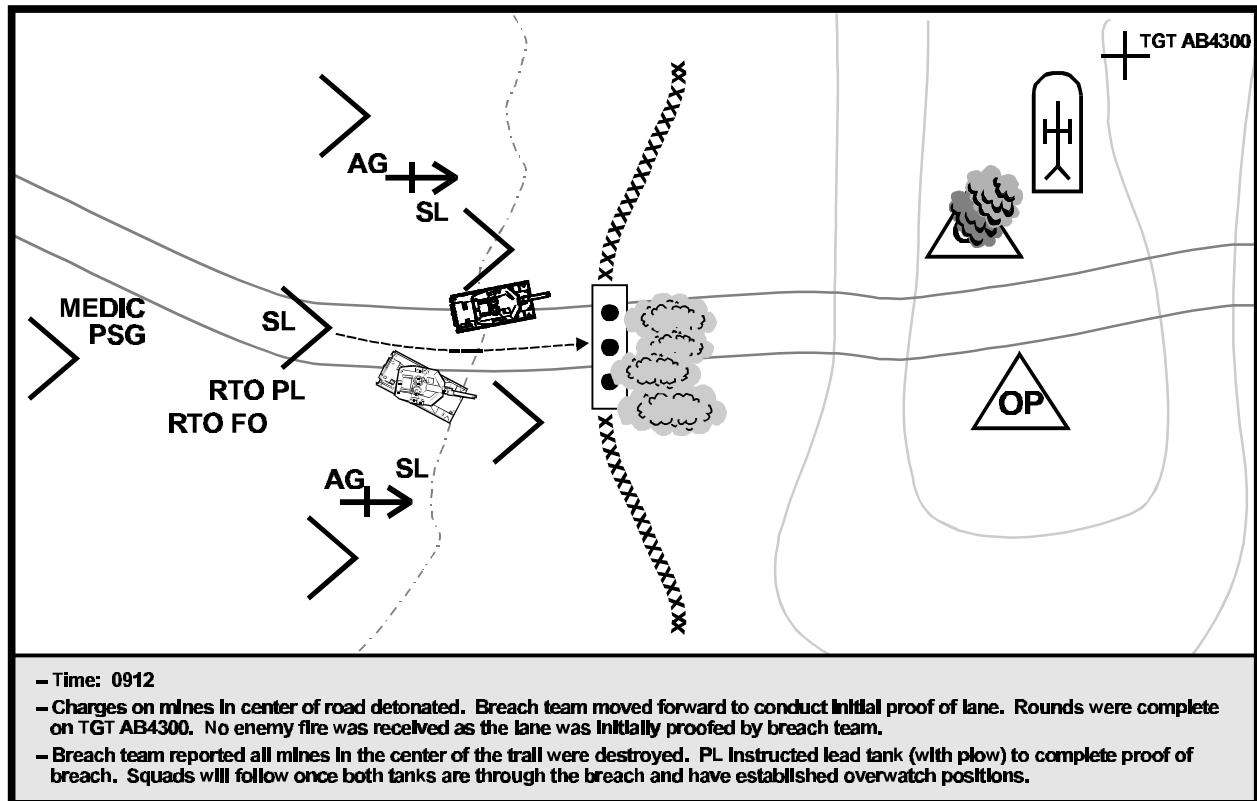
→ **Plan unobserved fires against templated enemy mortar positions.**

The *modified approach march* is a technique that follows basic principles and can be used against a conventional or unconventional enemy force. When practical, tanks should always operate with light infantry. There are certain light infantry soldiers in the Army that have had the distinctly distasteful experience of combat without U.S. armor support, and they never want to go back into combat without tanks.

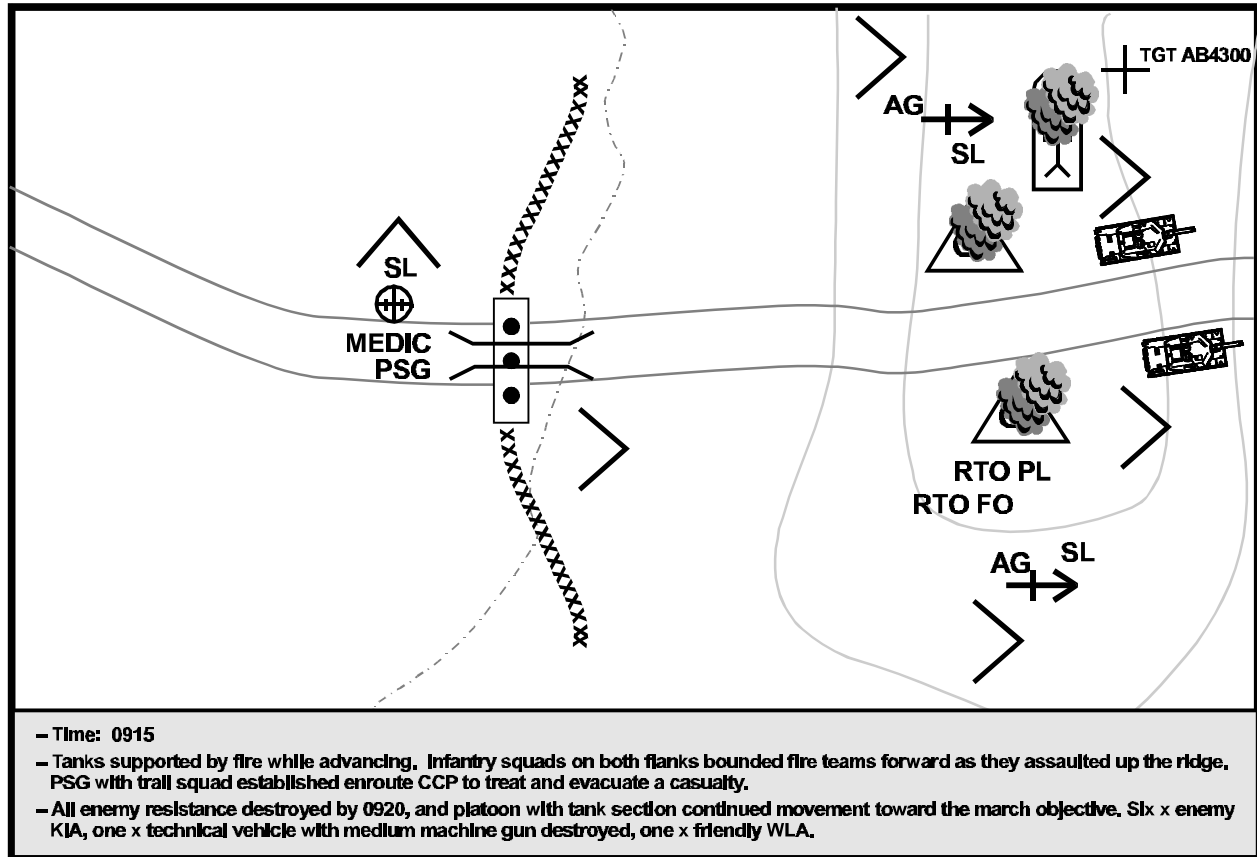
## MOVEMENT TO CONTACT (BREACH OF A MINE/WIRE OBSTACLE IN RESTRICTIVE TERRAIN)



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## CHAPTER 3

# DELIBERATE ATTACK

by CPT Craig Triscari

*“The lack of integration and cooperation between our infantry and armor led to our eventual downfall.” --General Von Thoma, German Army, 1945*

**1. GENERAL.** During a rotation at the Joint Readiness Training Center (JRTC), typically a unit finds itself asking how it is going to employ their tanks in the deliberate attack. At first, they war-game the possibility of leading with the tanks, but yield to the idea since the noise of the tracks would give the unit away. They then think about linking the heavy forces up at a point just before they attack and infiltrate the light force into sector. Most battalions usually adopt this course of action. What follows is the typical outcome of separating the two forces during the movement to the objective and actions on the objective. The light infantry begins their infiltration into sector reducing simple obstacles, while the tanks wait at the line of departure to move forward. The battalion moves closer to the strong point until it runs into the opposing force's (OPFOR) observation posts. With limited protection against BMP and artillery, the battalion begins to take casualties from enemy direct and indirect fire systems. The light infantry force finds itself running out of an artillery box, only to be engaged by OPFOR direct weapon systems. The battalion begins to take heavy losses, but continues the attack. When the battalion reaches the trigger point to call tanks forward, the battalion is, at best, 70 percent of its original combat power. As the tanks move forward, they follow the route marked by the scouts to the link-up point. The battalion again moves forward to the objective, taking casualties as they advance. The tanks never move to a support by fire position, but follow behind the infantry. Once they arrive at the objective, the light engineers begin to move forward to breach the obstacle; they begin to die at the wire. The tanks move to a position where they can only place limited fires on the objective as the light forces push through the OPFOR's meat grinder. During the attack, the tanks never take up a support-by-fire position that can effectively support the infantry attack. Consequently, the infantry fights their battle while the tanks fight their separate battle. The two forces never meet on the objective to raise the victory flag because the tanks rarely assault onto the objective.

This vignette highlights some of the tactics, techniques, and procedures needed to integrate the light/heavy forces in a deliberate attack. The concept of fighting infantry with tanks is by no means new. The commander and staff must be able to understand the capabilities and limitations inherent in fighting a light/heavy fight against an aggressive enemy. We have learned this lesson through history, not by initially training to standard, but by having to fight an integrated light/heavy force or face annihilation. The light/heavy integration begins with the understanding of differences in applying the Battlefield Operating Systems (BOSs) and developing the tactics, techniques, and procedures to win on a dynamic battlefield. **FM 100-5, Operations**, 1940, stated that “no arms wins battles” and that “the combined actions of all arms and services was the key to success.” Other field manuals recognized the need of the infantry and armor to work in close coordination by stating, “It is essential that the doctrine, powers and limitations of both be understood by those involved.”

☛ **The commander must analyze the enemy’s strengths and weaknesses before he can make an informed decision on assaulting with mounted and dismounted forces.**

☛ **If momentum is lost during the attack, the commander must assess the capabilities of his tanks in regaining the momentum.** Use the shock effect of the tanks.

☛ **Base the direct fire plan on the commander’s IPB of the objective.**

☛ **Light/heavy should provide mutual support during tactical movements.**

Bounding of light/heavy units is effective if the commanders understand the time and space differences in bounding forces forward.

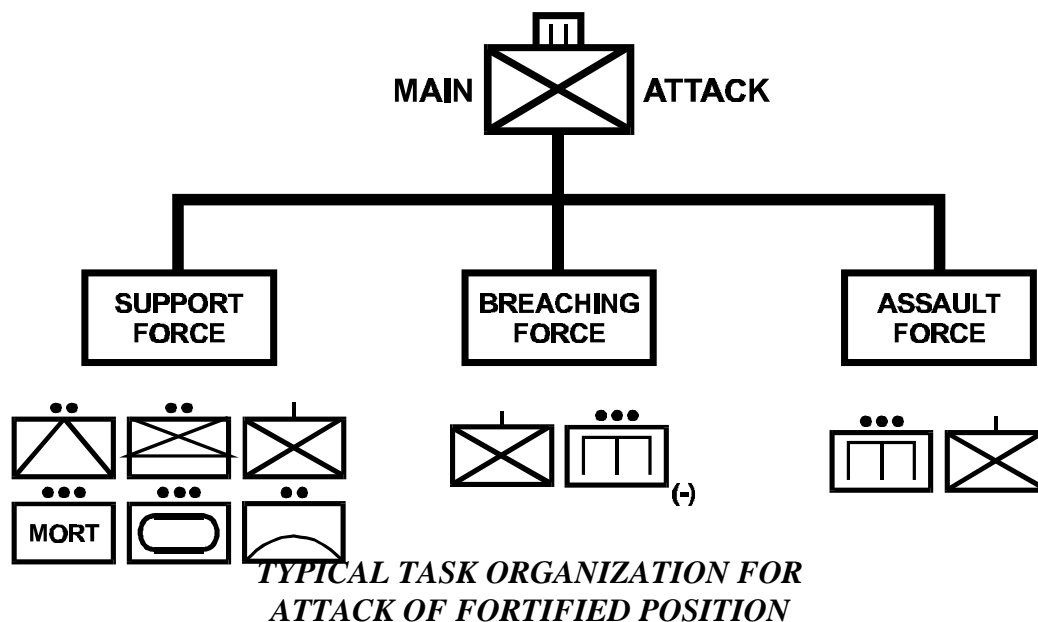
**2. DOCTRINAL BASE.** As in most offensive actions, the commander’s deduction of critical facts and the restated mission statement provide the focus for developing an attack. Most commanders begin their development of the operation from the decisive point on the objective and work their way back to the line of departure. A company can conduct attacks that are either separate or independent of a battalion. **FM 7-10, The Infantry Rifle Company**, discusses the forms of attack as either being hasty or deliberate. Because of the difficulties in fire control, navigation, identification of enemy and friendly forces, and limited visibility, attacks are normally deliberate. The company deliberate attack is usually coordinated and planned as part of a battalion attack. The difference between the hasty and deliberate attack is the time given to plan and the intelligence known on the objective; the effects of the attack are the same. Planning the deliberate attack for a light/heavy company team requires coordination at all levels due to the complexity and understanding of the combat arms involved. As we add the speed and firepower of tanks to the equation, we find that other battlefield operating systems are affected. One in particular is the employment of the unit’s artillery and the timing of the effects that trigger the battlefield system.

The deliberate attack using light/heavy forces opens new questions commanders and staffs have to take into consideration during the intelligence preparation of the battlefield (IPB). The coordination between the two elements is critical in addressing what each process brings to the fight. The planning differences in routes, interval, movement speed, formations, orientations, fire control measures, signals to be utilized between platoons, communication, and identification,

friend or foe (IFF) procedures are issues that must be resolved and rehearsed before crossing the line of departure.

The preparation of the deliberate attack also is affected by the light/heavy organization. The light infantry commander may be challenged by finding adequate rehearsal sites, conducting resupply operations, or moving to new assembly areas, to name a few. The leaders must have the knowledge to check all elements to ensure they have completed their pre-combat inspections to standard. The checklist may consist of questions concerning fuel status of tanks and slice vehicles, ammunition type and amounts, barometric pressures to be given to tank commanders, maintenance status, and breach equipment. These questions, if put into a standing operating procedure (SOP), allow the commander to refer to a resource instead of his memory.

During the execution phase, the attack is characterized by rapid advancement and assaults, supported by the BOSs. To lose momentum in the attack would give way to vulnerability and open opportunities for the enemy to react. The company must be able to conduct actions on the objective using teams, sections, squads, and platoons. These actions might include breaching, evacuating casualties, providing support, searching enemy prisoners of war (EPW), clearing a trench line, destroying and clearing bunkers, and consolidating and reorganizing, to name a few. These tasks are discussed in detail in **FM 7-8, *The Infantry Platoon and Squad***.



**Figure 3-1**

### 3. PLANNING.

**Issue 1:** *Company commanders do not task-organize Light/Heavy forces to provide continuous mutual supporting fires during tactical movements to the lowest command and control element.*

**Discussion:** When planning movements, the company commander must ensure the unit is moving in a way that supports a rapid transition to maneuver. Most units, when fighting a deliberate attack, do not take into consideration the traveling formations needed to move tanks with the light infantry. In planning the movement of a company team, the commander needs to take into consideration how the tank platoon's seven battle drills (change the formation, contact, action, react to indirect fire, react to air attack, react to nuclear attack, and react to chemical/biological attack) impact the company. The infantry platoon leaders need to rehearse with the tanks on the seven forms of contact (visual, direct fire, indirect fire, close air support (CAS), electronic/jamming, nuclear, biological, chemical (NBC), and obstacles)). Typically, a commander gives little to no thought to the movement to the objective. During this phase, tanks can provide supporting fires and a quick transition from movement to maneuver. Usually, a basic concept of operation looks like this:

*(From a company operation order during a deliberate attack at JRTC.)*

**Concept of the Operation:** We will move by truck to the attack position, with the tank platoon escorting. After dismounting, we will cross the line of departure (LD) and move rapidly to objective (OBJ) BEAR before the enemy can recover from our preparatory fire. The tank platoon will destroy the counterattack (CATK) force or force its withdrawal and will suppress bunkers to allow the main effort to breach the obstacles on OBJ BEAR. One platoon with a squad of engineers will conduct an assault breach and seize a foothold in the trench line. One platoon will assault to clear the rest of the trench line.

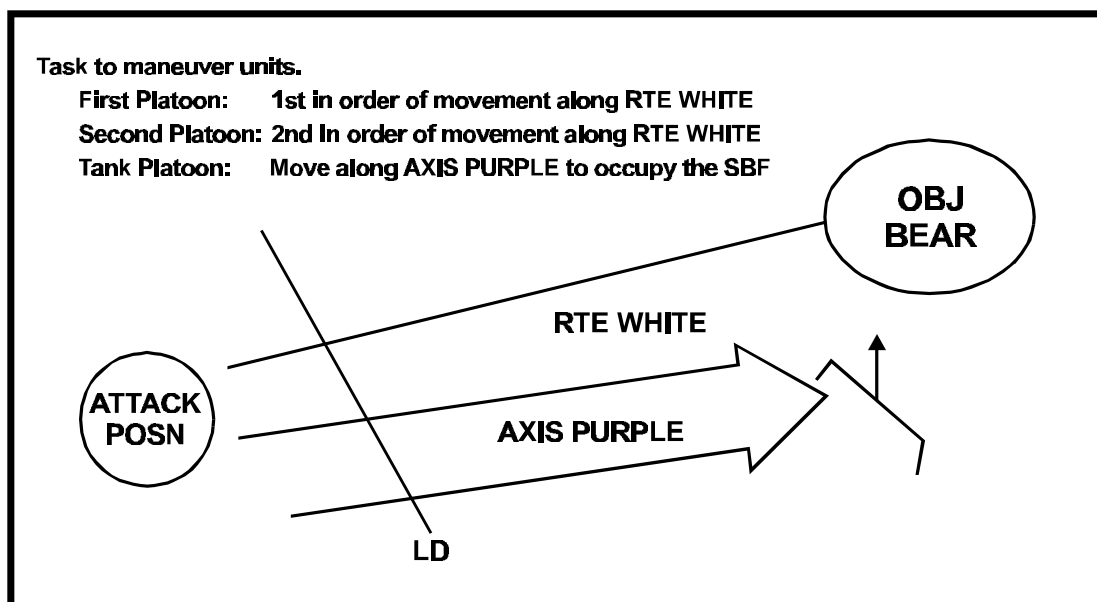


Figure 3-2

Rarely do you see a company commander give a platoon a section of tanks to maneuver with his platoon. Instead, the commander chooses to control and fight the tank platoon as a separate platoon. When the light infantry is separated from the tanks, it loses a large part of its firepower if engaged en route. The tanks, if separated, lose the close-in security the infantry can provide. This will depend on mission, enemy, terrain, troops, and time available (METT-T) and intelligence (INTEL). The company commander should consider a more integrated task organization as listed below.

## COMPANY TASK ORGANIZATION

<i>ASSAULT</i>	<i>SUPPORT</i>	<i>BREACH</i>	<i>HQ PLT</i>
<b>1st PLT</b>	<b>2d PLT</b>	<b>3d PLT</b>	
<b>Tank Sec</b>	<b>Tank Sec</b>	<b>ENG Sqd</b>	<b>FIST Tm</b>
<b>FO</b>	<b>FO</b>		<b>60-mm Mrt</b>
<b>MED</b>	<b>MED</b>		<b>MED</b>

### **TTP:**

**Mount the infantry on the tanks.** Move as fast as the situation will allow. There is security with overwhelming firepower. The commander must assess the biggest threat to his force during the movement and then apply his combat power to neutralize the enemy strength.

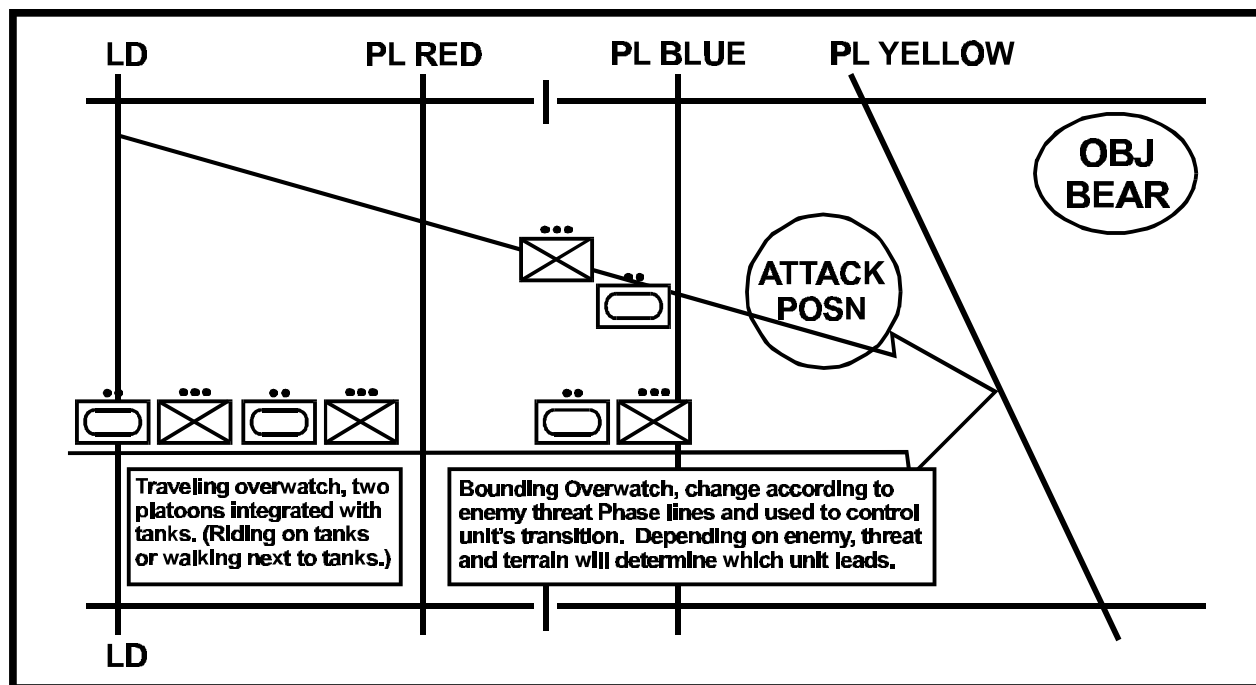
**Use the tanks' thermal sights to provide early warning to the light force.**

**Integrate the tanks with the infantry so that if the unit comes in contact they can transition from movement to maneuver with minimum delay.**

### **Issue 2:** *Units have difficulty integrating light/heavy elements into the scheme of maneuver.*

**Discussion:** When a commander is confronted with fighting a light/heavy company team, he needs to determine the most critical facts and their effects for the mission. Some considerations the commander must consider are: potential decisive points determined from integrating the enemy situation and terrain analysis, critical ammunition shortages, and identification of potential weaknesses in enemy positioning. If the commander has a good understanding of how the enemy is positioned on the battlefield, he can determine his weapons' effect and array his weapon systems accordingly. The control measures the commander can establish are phase lines (PLs), checkpoints (CPs), and engagement areas (EAs). The commander should use these points on the ground to control his fires as well as his movement. Rarely do commanders use the control measures to transition into other types of battle formations. Usually, phase lines are used to report to higher headquarters the current location and distance from the final objective. A technique is to establish phase lines to synchronize the force's move forward. For example, if chance of enemy contact is not likely before PL RED, the platoon may choose to ride on the tanks; after passing PL RED, the unit can transition into bounding overwatch, clearing the right and left flanks of the tanks as they bound forward.

Figure 3-3



#### TTP:

The company team needs to establish near and far recognition signals to help the armor unit identify friendly infantry as they bound forward: VS-17 (vehicle identification) panels, flashlights, and infrared (ir) chemical lights. Ensure you develop a realistic communication plan to facilitate reliable command and control during the movement.

The commander should use graphic control measures to assist him in transitioning his formations and movement techniques during unit movement to the objective.

Armor units should understand the direct fire support an infantry unit can provide without overextending his distance to the light infantry.

The light infantry needs to be aware of the tank's main gun and 50-caliber machine gun ranges so they do not mask the tank fire by maneuvering in front of their positions.

Use your tank platoon to eliminate the most serious direct fire threat to the company.

Commanders must ensure that the platoon leaders identify and plot:

- Known and suspected enemy positions.

- Direct and indirect fire range fans of enemy weapons systems.

- Enemy overlay for IVIS (Inter-Vehicle Information Systems) should be updated (M1A2 only).

Commanders must determine:

- Routes

- Movement techniques for the company

- Company formations based on:

- company battle space

- battalion scheme of maneuver

- the likelihood of contact and where

- the disparity between the tank platoon and infantry platoon movement rates

## 4. PREPARATION.

**Issue 3:** *Commanders conduct pre-combat inspections (PCIs) with their soldiers and equipment. Leaders focus on the readiness of mission-essential equipment and ammunition and on the mission understanding of subordinate elements, leaders, and individual soldiers. Infantry commanders do not display the knowledge to conduct effective PCIs with the armor unit. The commanders usually leave the inspections up to the armor leadership. This results in a misunderstanding of what equipment and ammunition can be used during the operation.*

**Discussion:** The inspection of the unit should consist, at a minimum, of each crew or squad's ability to move, shoot, and communicate. The infantry leadership needs to ensure that the equipment the armor is using will not hinder the commander's scheme of maneuver. For example, if a tank is firing SABOT rounds and the commander's scheme of maneuver plans on moving infantrymen next to the tanks, the discard of the rounds may cause injuries to the infantrymen. This information causes the commander to either change his scheme of maneuver or restrict the armor from using those rounds during certain phases. When conducting PCIs for the deliberate attack, leaders should, at a minimum, inspect the following:

What type of ammo does the tank have (SABOT has discard, HEAT rounds do not).	Additional water to be carried by the armor.	Additional ammo to be carried by the armor.	MEDEVAC equipment (litters, and SKEDCOs, casualty feeder cards).
Barometric pressure to be given to TC so they can update their computers.	PMCS of all weapon and vehicles systems in the company.	Review supply status of rations, water, fuel, oil, all types of ammunition, pyrotechnics, first-aid kits, and batteries.	EPW equipment ( tags, binding equipment).
Camouflage of equipment and soldiers.	NBC equipment if applicable.	Upload of vehicles according to unit's SOP.	Tank-attached field phones
Communications exercise of all communication systems to be used during the operation.	PMCS night-sight equipment and prep for movement.	Marking and identification equipment (VS-17 panels, ir chemical lights, strobe lights, flashlights).	Soldiers' knowledge of the mission.
Breach equipment both for the infantry and for tanks.	Weapons' boresight and zero.	Graphics and updates.	Navigational equipment (compasses, and pluggers).

**Issue 4:** *Commanders understand the importance of rehearsals, especially actions on the objective. The leaders fail to rehearse coordinated movements with the light/heavy elements. The more the unit focuses on squad and platoon-level movement with the armor, the more confident and aggressive the unit is fighting as a combined company team.*

**Discussion:** Rehearsals should focus on mission-specific tasks, allowing leaders to maximize the limited time available. Leaders should look for rehearsal sites where they can maneuver the armor elements. Since light infantry and armor do not regularly work with each other, they are apprehensive about maneuvering within close proximity. The light infantry worry about being run down while the tanks worry that the infantry will restrict their movement. A technique to bring light/heavy units' confidence level up is by working basic battle drills in an open area and then move to more restrictive terrain. Tanks should rehearse moving through all types of terrain with the infantry to their flanks and rear. Tanks should test fire near infantry to get them confident about being in close proximity while tanks are firing.

Rehearsals of actions on objectives should be detailed enough so that the infantry units understand fire commands. An example of a fire command rehearsal between the squad leader and the tank commander as they assault an objective:

**Infantry squad leader:** *"Tank destroy bunker one. Team Alpha, follow behind the tank and prepare to clear bunker."*

**Tank commander:** *"Bunker one destroyed. BMP moving forward, destroyed."*

**Infantry squad leader:** *"Team Alpha, clear bunker one. Team Bravo, follow behind tank prepare to clear."*

**Tank commander:** *"Engaging bunker two."*

**Infantry squad leader:** *"Team Bravo, move forward and clear bunker two."*

Leaders can rehearse these commands by using FM radio, hand-and-arm signals, or modified field telephones on the tank (see Appendix C). An additional technique that can be rehearsed is using M203 rounds to mark targets on the objective for the tanks.

**TTP:**

**Conduct rehearsals of fire command techniques down to squad level.**

Rehearsing control measures will prevent overkill when multiple units are able to observe and engage enemy targets.

**The priority of rehearsals should be in line with course-of-action (COA) development and flow from the decisive point of the operation to the LD.**

**Security must be maintained during rehearsals.**

**Rehearsals of resupplying and evacuating vehicles and personnel should be executed at platoon level and controlled at company level.**

**Issue 5:** *The company commander must understand that the tank platoon has no organic combat service support assets. Normally, the platoon sergeant will coordinate directly with both his organic company and the infantry company.*

**Discussion:** The most forward combat service support (CSS) element of the tank platoon's parent company/team will be the company team's combat trains. The trains should provide necessary vehicle recovery and maintenance service for the platoon. The light infantry company should provide immediate medical aid. It will be necessary for the company commander and tank platoon leader to determine the best route for the platoon to use in moving to the trains location. During the preparation for the attack, the commander must have a good understanding on how his tanks will be recovered and resupplied. Preparations for resupply may include being topped off four hours before an attack.

**TTP:**

The commander must recognize that proper maintenance is the key to keeping the tank platoon operational.

As a general guideline, tank platoons will conduct repair and recovery as far forward as the situation allows.

The M1A1 has a basic load capacity of 40 main gun rounds; 900 50-caliber; 11,400 7.62-mm; 24 smoke grenades. (M1A2 has a basic load of 42 main gun rounds, with the remaining amounts the same as the M1A1.)

Tanks need time to conduct maintenance.

When a commander loses one tank, he has lost a platoon of firepower in his company.

## 5. EXECUTION.

The attack must be violent and rapid to shock the enemy and prevent his recovery until the defense has been destroyed. The attacker must minimize his exposure to enemy fires by using maneuver and counterfire, avoiding obstacles, maintaining security, ensuring command and control, and remaining organized for the fight on the objective.

--FM 100-5, *Operations*, 1986

**Issue 6:** *A successful deliberate attack is usually a result of an integrated task organization and effective direct and indirect fire control plan. Rarely does the commander place a detailed fire control plan to integrate the heavy unit. The results are a free-for-all on the objective, either with tanks and infantry missing target opportunities or overkill of a particular sector. The inadequate analysis of an enemy situation results in the task organization being insufficient to support the company movement or attack.*

**Discussion:** A unit must task-organize so they have a breach element, support element, and an assault element. With decentralized elements, there must be control measures established to synchronize all elements to produce the desired effect--kill the enemy. The direct and indirect control plan is the method the commander uses to ensure that sufficient firepower is used in accordance with the threat. The control plan starts when the unit crosses the line of departure and ends with the consolidation and reorganization near the objective. The commander's fire control plan is affected by the enemy disposition, movement formations of the tanks and infantry, and speed of attack.

**Order of Battle:** The order of battle will depend on the commander's IPB, but this is a recommendation for a light/heavy integration for support, assault and breach elements.

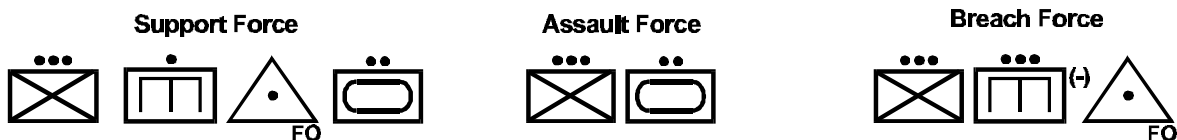


Figure 3-4

**SUPPORT ELEMENT:** The support element is usually the lead element in movement to the objective. The task of the support element is to assist in fixing, isolating, and suppressing enemy forces on the objective. The support element is also the most likely to come into contact en route to the objective; its given orientation is the direction of attack. The support force maneuvers to the objective with the light infantry providing close-in support and tanks providing overwhelming firepower against enemy dismounts. If the commander is unable to isolate the objective with maneuver, he can initially isolate the objective with fires and then with direct weapons from the tanks and the crew-served weapons. The support element should have an engineer attached to assist the platoon in conducting in-stride breaches to the objective.



## **TTP:**

### **Company Action/Options:**

**Elect to bypass.**

**Light platoon provides overwatch to the tank section as they move forward to provide suppressive fire.**

**Forward Observer (FO) calls for artillery on the far side of the obstacle.**

**Lead tank should have a mine plow to assist engineers of proofing lane.**

**Platoon leader designates sectors of fire for the light/heavy team.**

**Commander determines whether to plow through the breach or use the engineers.** *(Anti-personnel (AP) mines have little to no effect on tanks. Ensure soldiers are away from tanks if tanks proof a lane. A tank can go over one strand of wire without difficulty.)*

**Commanders must employ smoke before the lead element breaches or the tanks move through.**

**Use the application of SOSR.** The company can use the smoke grenades on the tanks to cover and obscure friendly movement.

**Use overwhelming firepower as the engineers move forward.** Tanks provide close-in support as the engineers reduce the obstacle. The infantry provides local security for the tanks as they suppress enemy positions.

**Trail elements should prepare to assault through the breach and continue the mission.**

**Artillery and mortars should continue to fire as the infantry and armor pass through the obstacle.**

**The commander must ensure the unit has obstruction, artillery, or mortar fire on the far side and direct fire on any known or suspected enemy positions before breaching.**

**During the deliberate attack a company team can expect to:**

**Destroy an inferior force.**

**Attack by fire.**

**Overwatch/support by fire.**

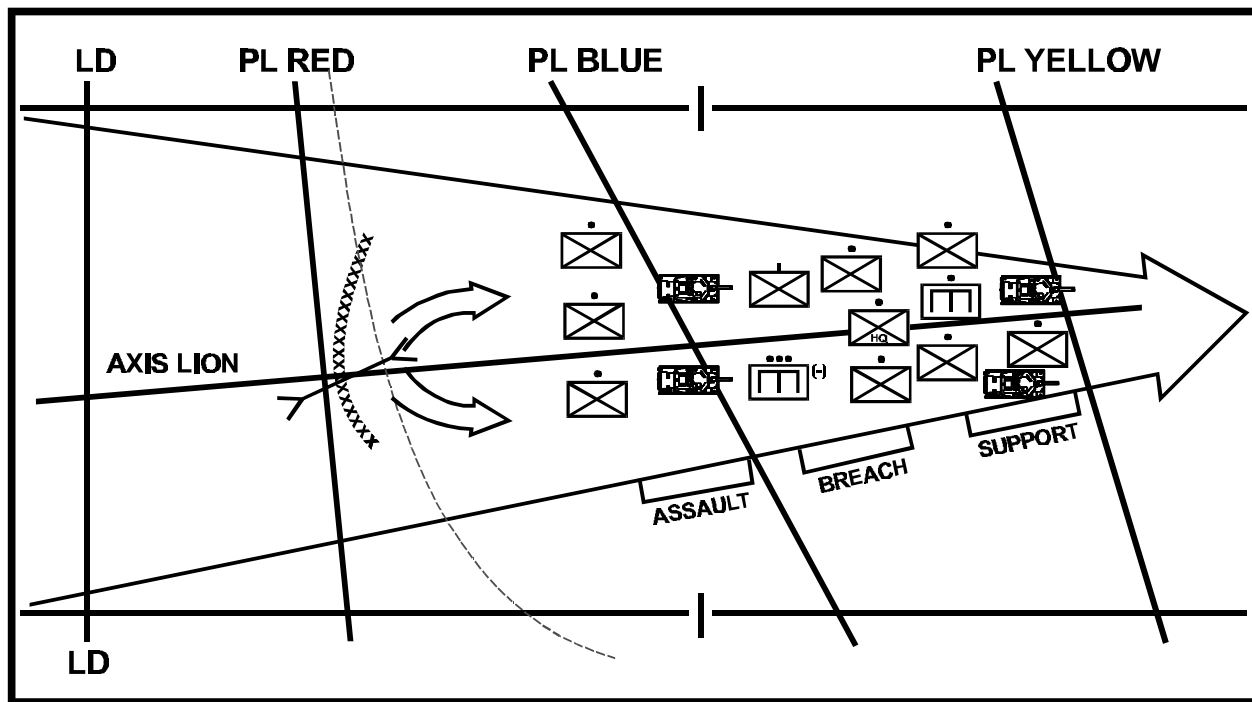
**Assault.**

**Bypass.**

**Reconnaissance by fire.**

**Hasty/in-stride breach.**

**Clear a danger area.**



**Figure 3-6**

**TTP:**

A commander can plan on conducting three types of breaches:

*Mechanical breaching*, usually with mines or mine rakes.

*Explosive breaching*, employing means such as the Mine-Clearing Line Charge (MICLIC), M173 line charge, bangalores, blocks of C<sup>4</sup>.

*Manual breaching*, with soldiers probing by hand or using grappling hooks, shovels, chain saws.

Commander must ensure he keeps the enemy on its heels by keeping up the momentum.

The engineers need to mark the breach large enough for a tank to pass through safely.

Unit SOPs will dictate marking methods and materials. Commonly, these include:

Cleared Lane Mechanical Marking Systems (CLAMMS)

Pathfinder system

Engineer stakes with tape

Guides

Chemical lights and/or infrared lights

Expendable shell casings

Commander orders the assault through the breach. The tanks should lead the assault with the infantry following behind. (Allow tanks to move through the breach before the infantry allows for more suppressive fire if needed.)

Commander should re-establish the company formation and continue forward to the objective.

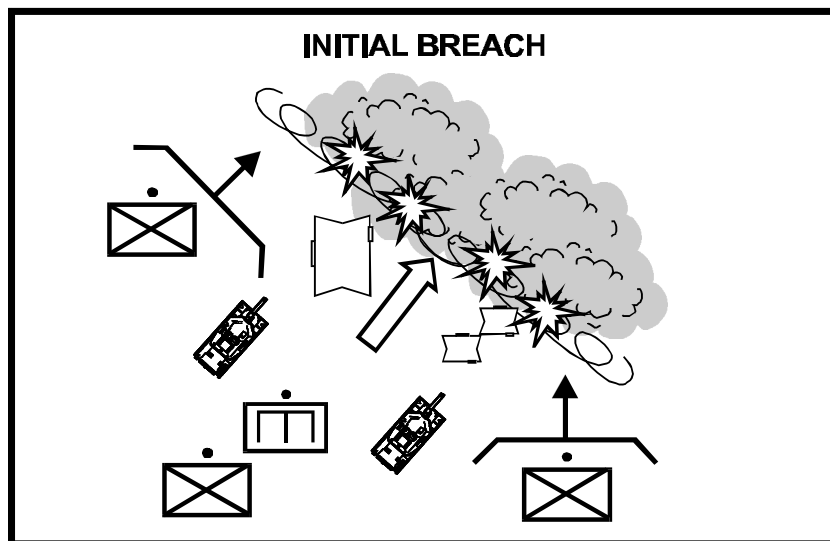


Figure 3-7

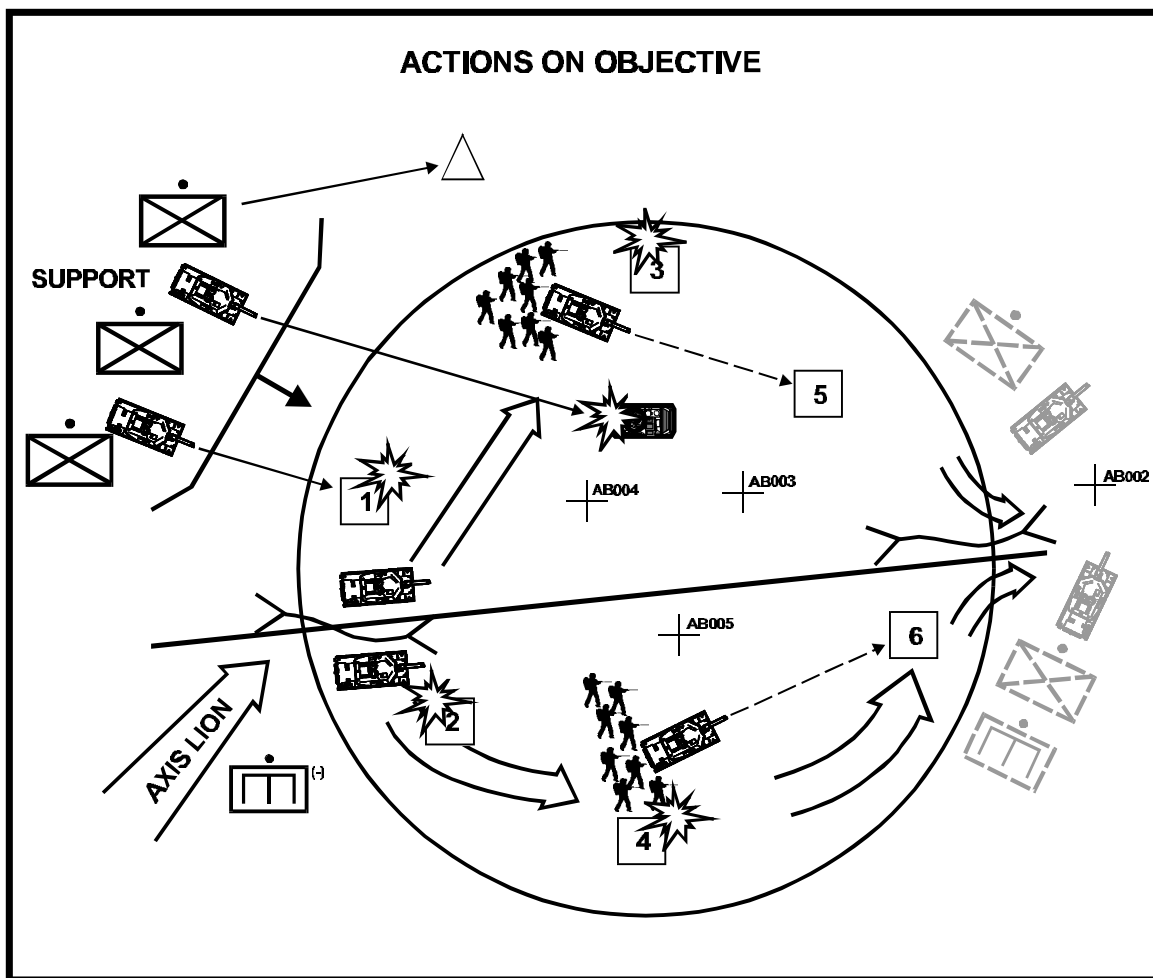


Figure 3-8

**TTP:**

**Tanks and infantry should not be separated on the objective.** A squad should follow a tank as it destroys bunkers or vehicles. The infantry should clear the bunkers once they have been engaged.

**The unit moves across an objective as slow or fast as needed to maintain communication and control.**

**Breaches and reduction of obstacles need to occur as soon as possible to allow the tanks the freedom of movement if there is a counterattack.**

**The commander should number or mark all known enemy positions on the objective and assign sectors of fire when the platoon assaults through the objective.**

**The best direct lay weapon system the commander has is the tank's main gun.** The commander should consider bringing forward his 60-mm to have additional direct lay capabilities.

**Once the assault element is on the objective, the commander should consider repositioning his support element if they cannot fire, or isolate the objective.**

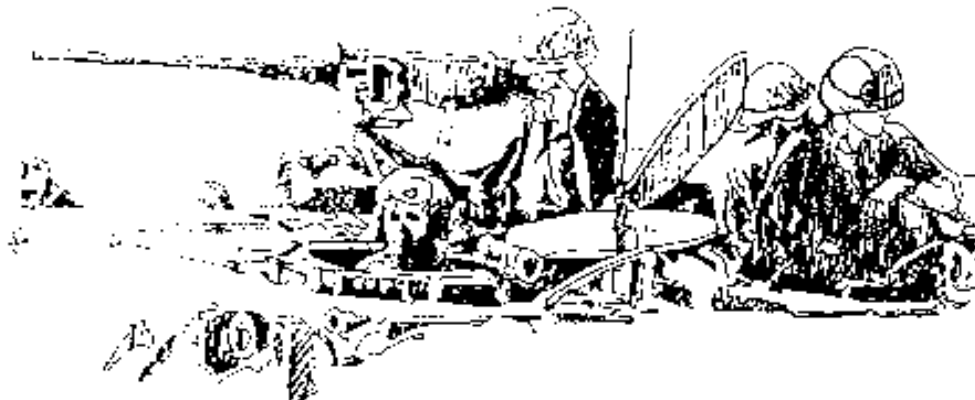
**Develop a marking system for destroyed bunkers and vehicles.**

**Tanks should have tracers to mark bunkers at night.**

**The infantry can cross-level PAC-4B to guide in infantry fires at night.**

**The commander needs to use the range finders of the tank when calling for artillery or preparing for counterattacks.**

**The commander must create an exit breach near the expected counterattack.** This allows the tanks freedom to maneuver if counterattacked by an armor force.





## CHAPTER 4

# MOUT OPERATIONS

by CPT Nicholas Panagakos and 1SG Ralph Kluna

**1. GENERAL.** Military operations on urbanized terrain (MOUT) provide units with multiple challenges different from the typical familiar combat operation. However, wherever war breaks out, it is most likely that some of the combat will take place in urban areas as diverse as huge metropolitan cities and remote villages. Regardless of the specific site, the exercise of certain doctrinal fundamentals remains valid if urban combat is to be successful.

*The fog had begun to move into the low-lying areas surrounding objective Gloria. "Gloria" was the name of the small village when it became an objective for the infantry company to clear. Intelligence reports had identified the village as a possible safe haven for the enemy to cache supplies and lager their troops. You could feel the anticipation throughout the company as H-hour was growing near. RTOs conducted final communications check on the company net, and squad leaders were continuing to conduct final backbriefs with their soldiers. At H-30, the company would move out.*

*At H-30 the high-pitched whine of the M1 tanks' turbine engines starting could be heard. This told the company to form for move out. Tank section one, assigned as support by fire, would move first. The infantry could hear the crunching of trees as the tank section maneuvered its way into position. All could hear as the tank section halted, then waited for the radio message of "SBF one in position." When the message came in, it was time to move.*

*First platoon would be a supporting effort and move first. The lead squad had identified a dry creek bed on an earlier reconnaissance and was using it now to infiltrate the platoon up to the village. Tank section two would be moving with the platoon, positioning one tank on each flank along the high ground. First platoon's task was to breach any obstacles that could delay the tanks from moving into the town. The platoon had been task-organized with an attached tank section and an attached engineer squad. The tank section would provide close support up to any obstacles and then pass the mission on to the second platoon and support the main effort in gaining a foothold. The engineer squad would execute any breaches necessary en route to the objective.*

*As the platoon moved along the creek, tank section one, at the support by fire position, began to report movement in the village. The enemy had begun moving much earlier than anticipated. If the enemy had detected them, it would become an exercise in reaction and*

possibly result in numerous casualties. The latest developments were unexpected, but would not hinder the company's mission, so first platoon continued to move, now with a greater sense of urgency.

Tank section two spotted an obstacle, and it was time for first platoon to go into action. Second squad began to move slowly into a support-by-fire position. When the squad leader could see the obstacle, he called the platoon leader with "second in position." The platoon leader moved the first squad forward with the engineer squad to execute the breach. The obstacle appeared well built; it had triple standard concertina with both anti-tank and anti-personnel mines in and around it. It stretched as far as the squad leader could see; there would be no bypass of this obstacle. The engineer squad had prepared the demolition charges while in the assault position. All they needed to do now was place the charges under the wire obstacle to form the breach necessary to move the tanks through and onto the objective. With the assistance of first squad, the engineers moved forward to place the charges. First squad threw smoke forward of the obstacle to obscure it; there was no need for suppressive fire because they had not been engaged yet. This would not be the case for much longer.

With a thunderous roar, machine gun fire erupted, penetrating the smoke barrier at the breach. Two soldiers become casualties instantly from the automatic fire. Tank sections one and two immediately returned fire with their machine guns. First squad leader rushed forward to evacuate his casualties and assist the engineers with placing their demolition charge, but was wounded en-route. Bravo team tried to assist the engineers and continue with the breach, but received a casualty as well. First squad and the engineers had received seven casualties in less than 30 seconds.

Third squad, the platoon reserve, immediately sprang into action. The squad leader fired and maneuvered his squad forward and completed placing the breaching charge, while the first squad evacuated their casualties to the platoon's casualty collection point (CCP). The platoon sergeant was forward now and began requesting for MEDEVAC over the command net. It would be two hours before first platoon could evacuate the casualties.

After third squad had set the charge, the platoon pulled back and blew the breach. The blast was deafening, and debris fell all around the soldiers of first platoon. The smoke and dust caused confusion, but the infantrymen were able to press on. Third squad moved forward to proof and mark the breach, then reported when it was ready.

Second platoon, the company main effort, started moving through the breach toward the first building. Their task was to gain a foothold for the company and clear buildings one and two. With squads using tanks from section two as shields, first and second squads moved toward their objective. When the two squads moved within 25 meters of the building, second squad started throwing smoke. The smoke was going to obscure the enemy from seeing them enter building one.

First squad of second platoon would enter the building through the back door. The Alpha team leader aggressively maneuvered his team into position. They were stacked on the left side of the door, when the team leader turned to kick the door in. In a flash of fire and vaporous smoke, the team leader had disappeared. The door had been booby-trapped.

*Immediately the squad leader pushed first squad through the door and continued with their mission to secure building one. Once the building was secured, the platoon passed second squad through the building and on to building two, second squad's objective.*

*The infantry company would be able to accomplish their mission and secure objective Gloria. Their ability to move into the village and gain a foothold ultimately ensured their success. The company paid a heavy price in accomplishing their goal and would not be combat ready for another 72 hours.*

**Issue 1:** *How could we have prevented some of those casualties?*

**EXAMPLE:** In the vignette above -

**TTP:**

**Techniques:**

→ By executing the breaching fundamentals of SOSR (Suppress, Obscure, Secure, and Reduce), while placing the attached tank section *between the enemy and the dismounted infantry to form a shield*, some of the casualties from small arms could have been prevented.

→ Do not use the door of an *enemy-occupied building as the entry point*. The doors most likely will be booby-trapped. Create an entry point while simultaneously clearing enemy from that room. Otherwise, use a window as an entry point (less dangerous than doors).

**2. DOCTRINAL BASE.** For such risky and potentially complicated operations, what does our doctrine tell us about planning, preparing, and executing MOUT operations? What these manuals *do not provide* are techniques for employing tanks with infantry during MOUT *in a role other than support by fire*.

*“The increased population and accelerated growth of cities have made the problems of combat in built-up areas an urgent requirement for the U.S. Army; this type of combat cannot be avoided....” --FM 90-10-1 w/ch 1, An Infantryman's Guide to Combat in Built-Up Areas.*

The concept of using tanks and infantry as a combined arms force in built-up areas is not new. However, the organization of the heavy infantry division places mechanized infantry and armor together. This does not give light infantry the opportunity to train with tanks habitually. The addition of the Bradley Fighting Vehicle further reinforces the armor relationship with mechanized infantry.

Throughout history, planners combined tanks with infantry to accomplish specific tasks. The last time tanks and infantry were combined and used extensively in an urban environment was 30 years ago during the battle of Hue. In 1968, U.S. forces had the mission to clear the city of Hue. The enemy resistance was so strong that the infantry could not do it alone. The Marine Corps combined the efforts of infantry and tanks to accomplish their goal and clear the city.

In 1993, while conducting operations in Somalia, U.S. forces operated in an urban environment (Mogadishu) without the support of armor. When the enemy had decisively engaged the infantry, U.S. ground forces were unable to move into the area and extract them. This resulted in 18 hours of intense combat, leaving 18 American soldiers dead and countless others wounded. The addition of armor might have allowed for quicker reaction and possibly less casualties. Because we did not have armor forces in country, we will never know.

A more recent incident, not involving U.S. forces, occurred during the Russian invasion of Chechnya in late 1994. The Russian attack on Grozny consisted of a motorized rifle regiment (roughly 2,000 troops), with the goal of reaching the train station. The infantry and tanks had not been prepared for the resistance they would encounter. Russian infantry rode on top of the tanks during the movement into the city. This made them easy targets for the Chechen rebels. The rebels simply used machine gun fire to engage the infantry and RPG-7s to engage the tanks. The covering infantry either was separated from the tanks or dismounted too late. At the end of the battle, the attacking Russian brigade lost 20 of its 26 tanks, 100 of its 120 Armor Personnel Carriers (APC), and half of their 1,000 men were either killed, wounded, or missing in action. The lack of combined arms training and a poor plan combined for devastating results during the assault on Grozny.

**3. PLANNING.** Planning provides the cornerstone to success. Military plans must be simple yet provide enough detail to allow subordinates to execute with minimal guidance. Plans should identify main and supporting efforts as well as the *decisive point*. These help the commander shape a plan maximizing the effectiveness of his combined arms force. What follows are some experiences based on MOUT planning considerations for combined arms employment.

**Issue 2:** *Improper task organization for MOUT operations and unclear chain of command and control.*

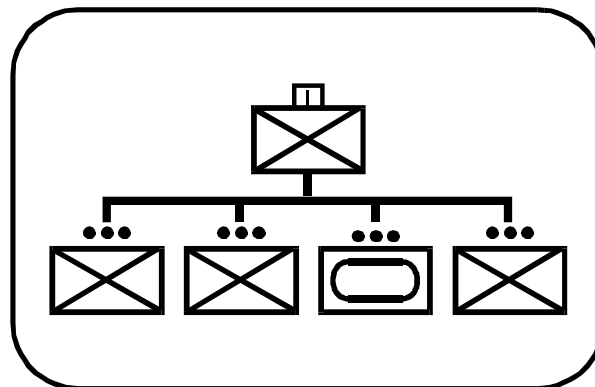
**Discussion:** The result was confusion and lack of control during mission execution.

### TTP:

**Techniques:** The task organization should reflect where elements will be assigned for a given mission; more importantly, the *senior maneuver element leader* should be in control of each element.

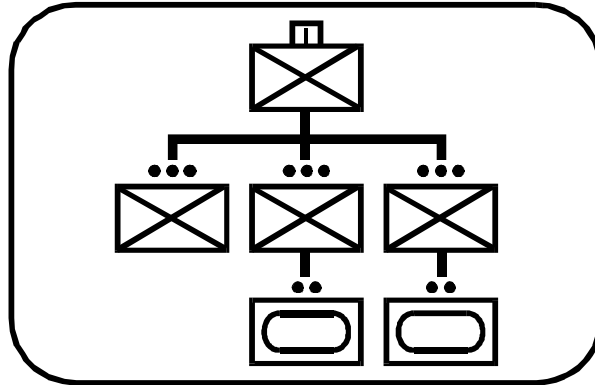
**EXAMPLE:** There are three traditional ways to task-organize *a tank platoon into an infantry company*.

**Put the tank platoon under company control (see Figure 4-1).** The tank platoon leader *should be responsible* for maneuvering the tanks in accordance with the *commander's intent*. With this task organization, tanks would most likely be used in *support by fire* and *overwatch* missions. This task organization is **the most difficult to maneuver tanks with the infantry**. However, the tank platoon leader can choose to maneuver the platoon by sections to execute the mission. This would provide greater flexibility in supporting the infantry *during the close fight*.



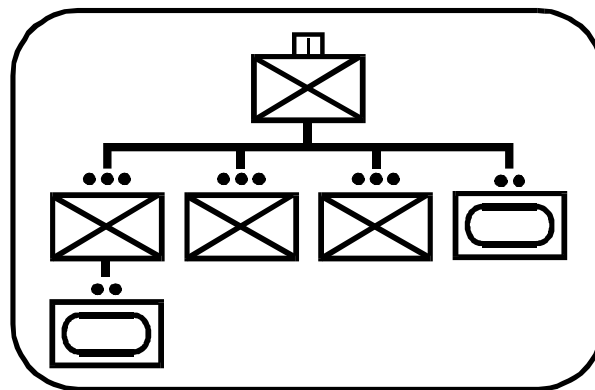
**Figure 4-1**

**Break the tank platoon into two sections, each under control of one infantry platoon (see Figure 4-2).** The commander relinquishes direct control of the tank maneuver to the infantry platoon leaders. This technique is **very effective in keeping the tanks at the same rate of progress as the infantry**. However, infantry platoon leaders burdened with the additional command and control responsibilities often *have a difficult time maneuvering the tank platoons* because of a lack of experience with tanks and overall battlefield focus. Typically the infantry platoon leader is focused on clearing a building and on his maneuver squads. This results in his *forgetting* the tanks and failing to maneuver them forward.



**Figure 4-2**

**Break the tank platoon into two sections: one under company control and one under platoon control (see Figure 4-3).** The maneuver infantry platoon has a tank section available to support the close fight. As stated in the previous option, the infantry platoon leader would still face the difficulties associated with this additional element to command and control. However, the **commander has a tank section to deploy at the critical place and time**, as he determines. This task organization technique still allows support to the infantry close fight while keeping additional support options in reserve for the commander to employ. There are *drawbacks* here as well. The tank platoon leader is not maneuvering his tanks--an infantry platoon leader is. Also, the tanks directly available to the company commander are cut in half.



**Figure 4-3**

None of these techniques are inherently better than the other. The task organization has to be tailored to best suit the given mission. Regardless of the technique selected, what follows are some rules of thumb to remember during planning, preparation, and execution:

**If using tanks to shield squads and teams from building to building as part of the maneuver, *the leader of the forward element needs to control the tanks.***

**If the commander is controlling the tanks, *he needs to move forward* to a position where he can effectively maneuver the tanks in support of the infantry.**

**The task organization should *support the span of control.*** If the commander is going to control the tanks, then there is no reason to task-organize the tanks by section under infantry platoons.

**Tanks and infantry *must be mutually supporting.*** Tanks need infantry support when the two elements are working together. Do not leave tanks alone because they are not prepared to pull local security during the operation. Tanks are *extremely vulnerable to dismounted attack* when operating in restricted terrain.

**Issue 3:** *Too many infantry commanders fail to use Intelligence Preparation of the Battlefield (IPB) products during the development of their plan.*

**Issue 4:** *Too many commanders fail to consider mounted avenues of approach portrayed in Modified Combined Obstacle Overlay (MCOO) produced.*

### **Discussion:**

Commanders too often devise plans without adequate consideration of *how the enemy fights*. An enemy will react differently to an armor threat than to an infantry threat. However, when such reactions are not considered, *tanks are often left vulnerable to enemy anti-tank weapons and obstacles* because of **planning oversights**.

**The failure to effectively use the MCOO gives specific examples of planning oversights.** For example, mounted avenues of approach encompass far more than the road network. Road networks will be the first place that the enemy will emplace mobility obstacles.

### **TTP:**

#### **Techniques:**

→ In many cases, the integration of IPB products into the planning process would have eliminated the oversights that do not often show up until mission execution.

→ In planning, pay close attention to available terrain that will support tank cross-country movement. The pace may be slower, but by using terrain for concealment, far greater security is possible.

→ Infantry commanders must fully understand the capabilities and limitations of the tanks attached to their company.

→ Involve tank platoon leaders and platoon sergeants in the infantry company-level IPB process; their tank expertise will hasten the understanding of what tanks can and cannot do and aid the infantry commander in making the best employment decisions.

→ At every level of IPB, *always* address enemy capabilities and limitations.

**Issue 5:** *Light infantry commanders and staffs too often fail to consider using tanks to support the overall CSS effort. This usually means they fail to consider tanks as a readily available mobile platform.*

**Issue 6:** *Too many light infantry units are unfamiliar with the Class III, IV, and overall maintenance requirements associated with attached tanks.*

**TTP:**

**Techniques:**

→ **Light infantry elements can use attached tanks to carry water and ammunition as well as other supplies.** This obvious benefit to the dismounted infantryman is too often overlooked, especially when operations are extended or require the expenditure of large amounts of ammunition.

→ **To keep attached tanks *mission capable* requires planning for refueling and rearming of the tanks.** Additionally, there may be a requirement for recovery of one or more tanks because of maintenance problems or the tank being disabled during contact. Light infantry logisticians need to ensure they understand the planning factors for fuel and ammunition consumption, and then make the necessary arrangements for adequate resupply, maintenance support, and recovery capability. Failure to do so can result in unnecessary loss of attached tanks. *Push the necessary support packages well forward on the battlefield.* Put them under the control of the company XO to provide the most immediate support reaction. This will shorten the recovery period.

**4. PREPARATION.** The preparation phase of any operation is critical to the success of the operation. Steps taken prior to mission execution can greatly impact the ultimate success or failure of the mission during the execution phase. MOUT operations are no exception. The addition of tanks to the battle mix of Light Infantry gives even greater necessity to thoroughly prepare for operations.

**Issue 7:** *Too many Pre-combat Inspections (PCIs) and Pre-combat Checks (PCCs) lack the necessary thoroughness to be useful.*

**Issue 8:** *Too many units fail to sufficiently rehearse operations; backbriefs take the place of full-force rehearsals. While back briefs have their place, they pale in comparison to the value of rehearsals conducted in greater detail, particularly with tasks related to actions on the objective.*

**Issue 9:** *Too many soldiers are not aware of the contingencies involved when operating with tanks in close combat. The addition of tanks to a light infantry task organization inherently implies the necessity for a thorough and detailed preparation. For example, Rules of Engagement (ROE) may be very specific about collateral damage in an urban area, and failure to understand the destructive power of tanks can make ROE compliance difficult.*

**Issue 10:** *The presence of civilians during MOUT operations provides very unpredictable challenges for elements executing close combat in urban areas, challenges which too often are glossed over during mission preparation and prove detrimental to successful mission completion.*

**TTP:**

**PCIs:**

→ The addition of tanks to the Light Infantry task organization does not change the basic requirement for PCIs-- tanks simply increase the amount and type of inspections necessary. The PCIs are still geared to ensuring the unit can *move, shoot, and communicate*. However, it is advisable that the commander initially use infantry personnel to inspect infantry equipment, and that tankers inspect the tanks. THEN, the two elements can help inspect each other, particularly with equipment directly involved with support. **EXAMPLE:** Use infantrymen to inspect the *external phone box* on each tank, since the infantry relies on these phones as a means of communication during close combat supported by tanks. This helps ensure the equipment is serviceable AND that the infantry knows how to use the phones.

→ Commanders must specifically set aside time for PCIs and sub-divide the time to include cross-over inspections, for example, Joint PCIs with tanks and infantry, as described above.

→ Commanders must ensure PCI *standards* are briefed and then *enforced*.

→ Commanders should develop PCI checklists as a tool to assist leaders at all levels to effectively inspect their equipment and the equipment of attached elements.

**Rehearsals:**

→ Conduct a combined arms rehearsal, time permitting, *at the level tanks are task-organized*. The following aspects of the combined arms operation need to be rehearsed:

Graphic and fire control measures

Communications

Direct fire plans

Breach drills

Procedures for infantry *riding on tanks*

Techniques for using tanks as infantry shields

→ Try to replicate conditions for mission execution during rehearsals, i.e., day, night, civilians on the battlefield, and host-nation personnel, as well as ROE.

**5. EXECUTION.** As with any other combat operation, the ultimate success or failure of the mission is determined by how well the units execute the mission. Obviously the planning and preparation for any given mission are key to any subsequent success or failure. However, regardless of the plan or the level of pre-mission preparation, soldiers' and officers' ability to execute the individual and collective tasks inherent in the mission clearly determine the likelihood of mission success. This task ability is a direct result of disciplined training and repetition. If soldiers can execute their tasks to standard, then it is up to leaders to position their soldiers for success in battle.

**Issue 11:** *Too often light infantry fails to properly employ tanks to reinforce the infantry's attempts to gain a foothold during MOUT operations, a critical step in achieving mission success.*

**Discussion:** To gain a foothold to access a village or a town, use tanks to reinforce light infantry. Gaining a foothold is executed under one of two basic conditions: (1) detected or (2) undetected. Obviously, being undetected by the enemy is preferred. Additionally, the following task-organization conditions exist: supporting the infantry will be armor, engineer, and field artillery elements. Each element will combine their efforts to gain the foothold.

**TTP:**

**Techniques:**

→ Use of tanks in a *support by fire* for the infantry.

Employ tanks as a *support-by-fire element*.

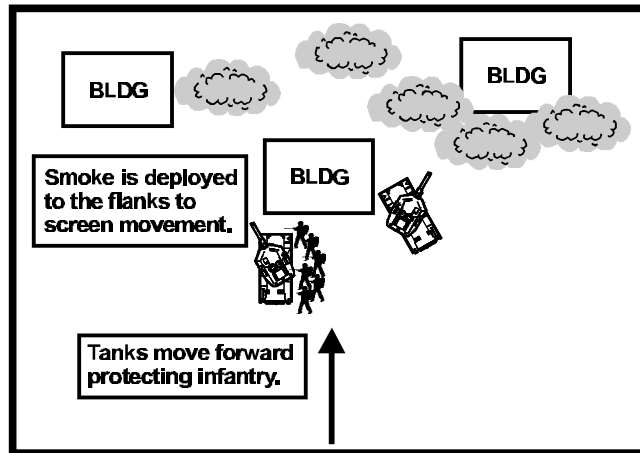
Employ *stand-off* to maximize the effectiveness of the tanks' weapon systems.

Stand-off allows for greater coverage of the objective.

Use *clearly understood* control measures (graphic, visual and direct/indirect fire) to mark the progress of the infantry.

Maintain enough maneuver flexibility that tanks can reposition their support-by-fire positions *based on, and relative to*, the infantry advance.

*All* the tanks in the combined arms force *should not* be dedicated to support by fire.



**Figure 4-4**

→ Use tanks to maneuver infantry squads into the village.

With some tanks in the support by fire role, the remaining tanks can move infantry soldiers into a position to gain the foothold.

Tanks can provide a *mobile shield* for dismounted infantry, protecting them from small-arms fire and shell fragments. This allows an infantry squad to move behind a tank all the way forward to the targeted building. The tank also provides immediate direct fire support for any threat to the infantry squad. Tanks can move a **maximum** of nine personnel.

After gaining the foothold, continue to use tanks to move infantry.

Maintain communication between tanks and infantry throughout mission execution.

Establish identification, friend or foe (IFF) to prevent fratricide.

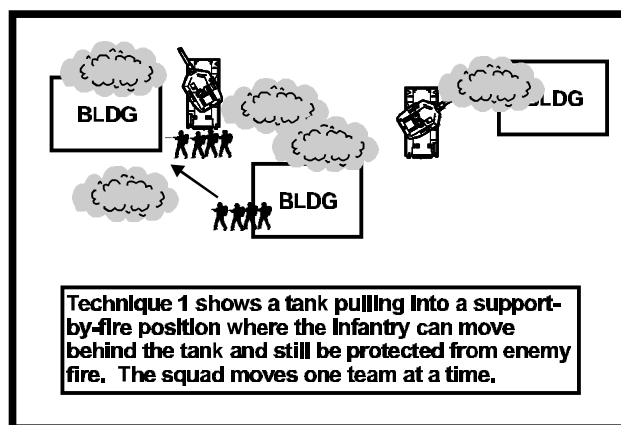


Figure 4-5

→ Use smoke to *screen movement* from those areas that tanks cannot block. Use the smoke to obscure the vision from other buildings, not between the infantry and the building they wish to enter.

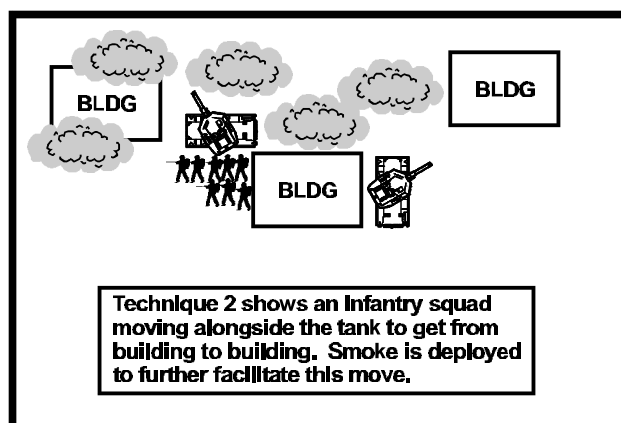


Figure 4-6

**Issue 12:** The majority of MOUT casualties occur as units move outside of buildings or move between buildings. A *lack of situational awareness* is the primary cause of these casualties.

**TTP:**

**Technique:** To minimize casualties when moving outside or between buildings:

- Cover all possible threat locations with either *observation or fire*.
- For those areas it is not possible to cover with observation or fire, use *smoke* to set a screen to block enemy observation of friendly movement.
- Move tanks *forward* to support infantry moves. Properly position the tanks **before** the infantry begins moving, whether the tanks are supporting by fire or being used as shields, or both.
- Pre-plan the positions if possible, but devise a marking system and communication signals to designate situationally dependent positions to help maintain momentum.
- When using tanks as a shield for the infantry, move the tanks *as close as possible* to the start point to allow the infantry the freedom of movement when exiting the building.
- Tanks need to *move at the infantry's rate of movement*.
- When the distance between buildings is short, tanks can just position themselves to *block the open area from enemy fire*.

**Issue 13:** *Too many company commanders do not position themselves where they can best command and control all of their elements. They are either too far back and unable to see the fight, or they get too far forward and get decisively engaged in squad- or platoon-level fights.*

**Discussion:** The commander is unable to effectively maneuver forces he is responsible to synchronize, unable to mass direct and indirect fires at critical points, or position key elements under his control. This results in a failure to ensure the main effort is at the decisive point with the overwhelming combat power necessary to be successful.

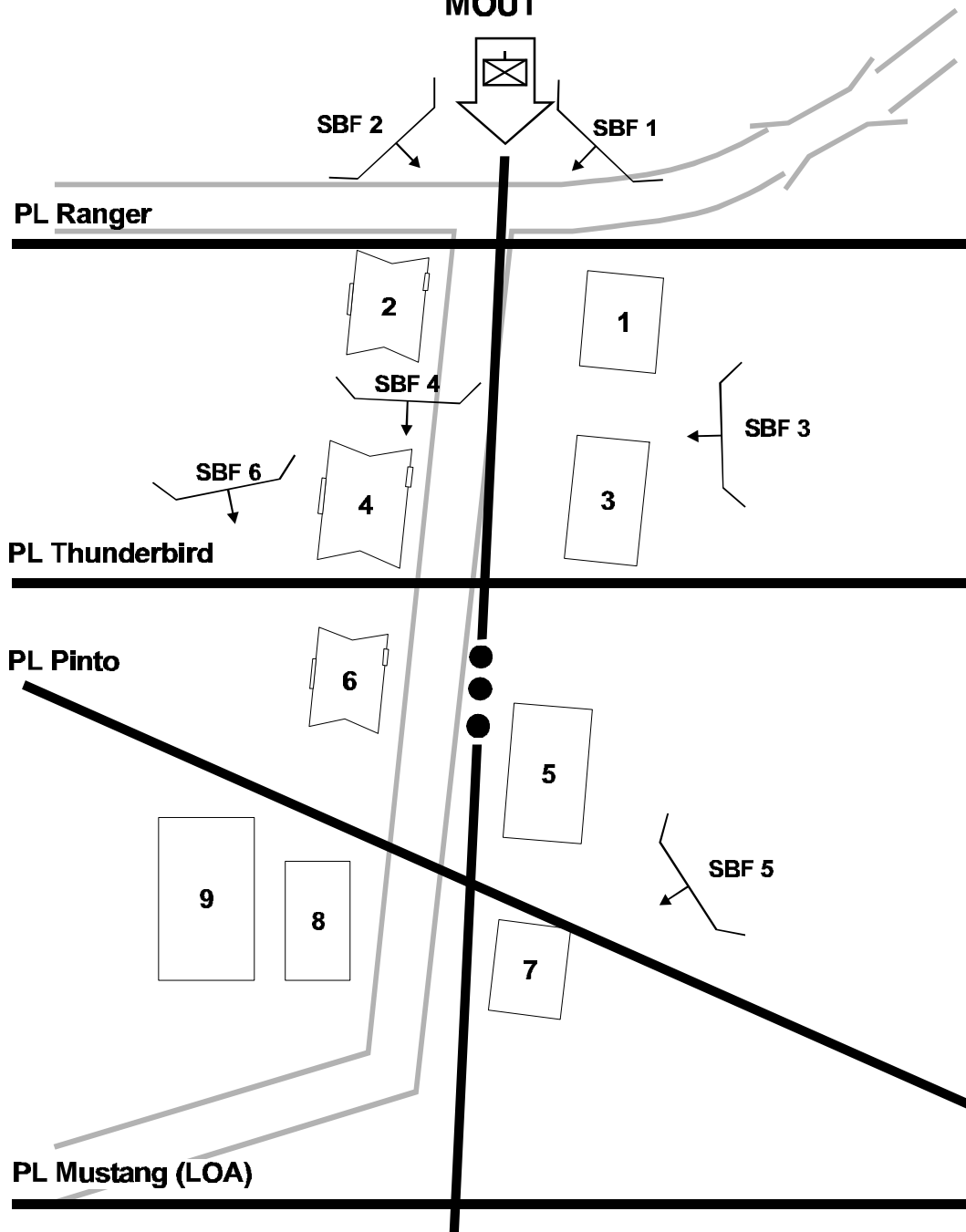
**TTP:**

**Technique:** Use graphic and other type control measures, widely disseminated and clearly understood by all elements in the task organization, to assist the company/team commander's command and control. The following control measures are particularly useful in MOUT operations:

- Phase lines
- Number and lettering systems for buildings
- Tentative support by fire positions
- No fire areas

These control measures can assist the commander to visualize the battle, which is critical for those portions of the battle he may not be in a position to actually see (see Figure 4-7).

# **TANK/LIGHT INFANTRY TECHNIQUES, TACTICS, AND PROCEDURES (TTP) MOUT**



The commander relies on the radio to help him control the battle. It is essential that platoon leaders and platoon RTOs are well-trained in sending reports. Constant reporting from the subordinate elements to the commander is critical for mission success. RTPs must know the entire plan to include all the graphic control measures. RTOs must be able to send concise and timely reports when the platoon leader is unable to do so. The company COMMEX should include an RTO rehearsal which tests the knowledge of the RTO by executing the mission over the radio.



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## CHAPTER 5

# BATTLE POSITIONS

by CPT Craig Triscari

**1. GENERAL.** The following issues regarding the unique problems of developing optimum battle positions for light/heavy combined arms teams were observed during a recent focused rotation at JRTC.

**Issue 1:** *The infantry commander has a difficult time arraying tanks on the battlefield.*

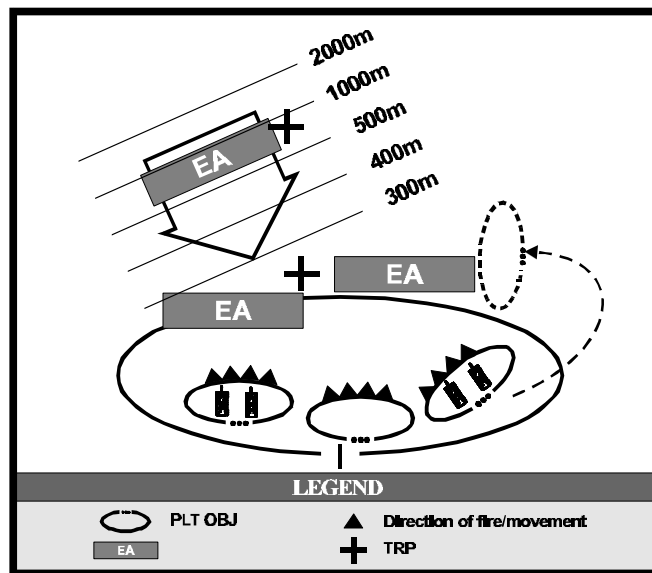
**EXAMPLE:** Typically, commanders establish battle positions for the tanks, but do not ensure that the final positioning supports the company and battalion plan. Infantry commanders tend to piecemeal tanks in battle positions.

**Discussion:** The result of this action was increased vulnerability of armor assets. Infantry company commanders do a good job of positioning their internal crew-served weapons to ensure they are integrated into the overall company plan. A common mistake commanders make is to give the tank platoon leader responsibility for selecting and preparing his defensive position. To compound the error, they never “check back” on the suitability of the final positions.

The infantry commander must realize that one tank provides him the equivalent of an infantry platoon’s firepower. The positioning of these assets should be as detailed as positioning the organic crew-served weapons in the company. The commander must be able to mass and shift combat power faster than the attacker. To achieve this superiority with tanks, he has to understand the fundamentals of fighting with tanks. A tank platoon trains and conducts battle drills with the wing man concept in mind. Tanks work together as infantrymen work--as a team; they provide mutual support and protection for each other. Frequently, commanders consider tanks as an individual fighting machine. This results in the individual positioning of tanks to provide fires in an infantry platoon engagement area. Develop your defense so that the company/battalion/brigade is postured to go on the offensive. This means to position your tanks so they can operate as a section or platoon and provide support to the light infantry.

### TTP:

- The planning for the employment of a tank platoon should include potential displacement routes, additional positions, and counterattack contingencies.
- Give the tank platoon leader the responsibility of positioning his sections, then ensure his plan supports the overall company mission.
- Depending on the armor threat and terrain, commanders should plan to fight tanks as a section or platoon. A single tank does not fight alone.
- Commanders should consider placing tank sections in infantry platoon battle positions so the tanks are secured from dismounted attacks.



**Figure 5-1**

**Issue 2:** *When fighting in battle positions, light infantry commanders tend to be more linear and centralized. Little consideration is given to conducting an in-depth defense using battle positions because the command and control of direct and indirect fires is difficult.*

**Discussion:** In close terrain where infantry prefers to operate, it is difficult to achieve mutual support between platoon battle positions and tanks. It is equally as difficult for the commander to find a position where he has a view of his entire sector. As a result, the commander chooses to fight a linear defense because it is easier to control his assets. Although defending in depth is viable against armor, it is vulnerable to infantry attack or combined arms actions directed against individual positions.

**TTP: Infantry company commanders should use the mobility and firepower of attached tank platoons to provide additional depth in their defense.** The addition of armor to the company defense enhances battle position development tenfold.

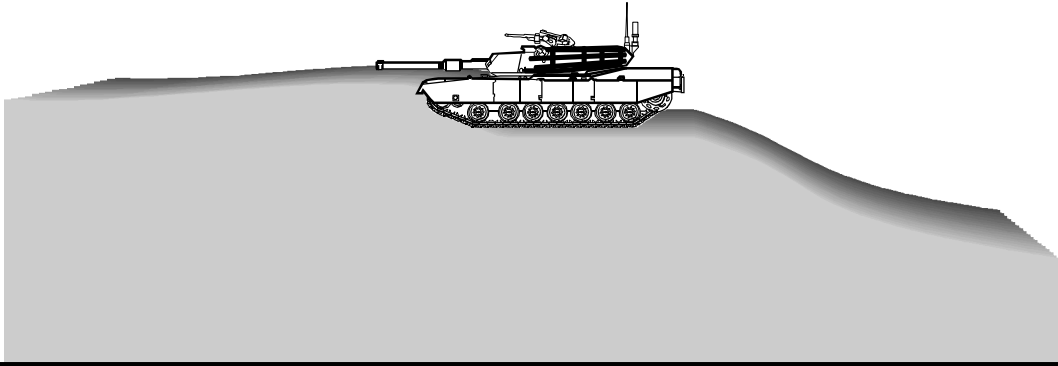
**2. PLANNING.** The commander has to develop a plan for tank engagement criteria, fire pattern, disengagement criteria, routes to supplementary positions, TRPs, dead space, and displacement. He must determine if using depth with tanks and infantry will give him more of an advantage over the enemy than using a linear defense. The commander must figure out how to get all of his forces into a fight.

***EXAMPLE:** If the commander fights a linear defense, he must not fight in fixed positions unless the enemy goes exactly where he wants...and he stays in his engagement area until the enemy is dead. Since this may be too much to ask of the enemy, it means the commander must possess the flexibility and agility to move his armor and infantry forces to mass fires. Armor elements permit the commander to maneuver in the defense quicker than with light infantry alone.*

**Issue 3:** *Infantry commanders waste critical engineer assets digging in tanks because the commander picks a position on the forward slope.*

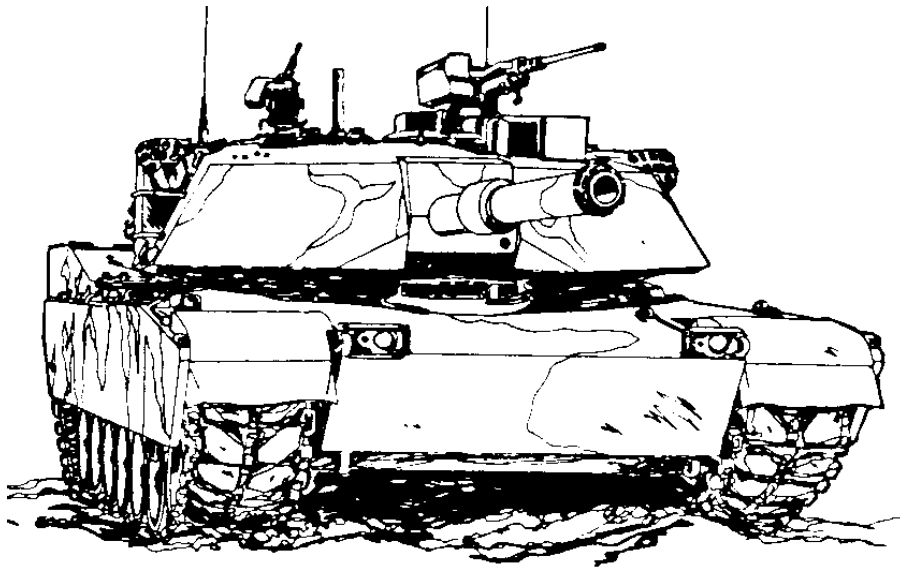
**Discussion:** Infantry company commanders often require tank platoons to dig in. Doing so greatly increases tank survivability. This requirement also allows less time for those critical engineer assets to build obstacles and survivability positions for others. Digging assets should be used to dig obstacles to support the unit plan. Conduct a detailed analysis to determine where tanks can use the reverse slope of hills. Using the reverse slope whenever possible reduces the demand on scarce engineer digging assets and enhances tank survivability as they move to alternate and supplementary positions.

- Berms attract attention. Dig down, not up.
- Do not pull spoil to the front, sides, or rear of the firing position. Reduce spoil so that it blends into existing terrain.
- Tie down all antennas and keep reflective surfaces covered.
- Make sure the firing position has a covered exit route and a covered route to the next firing position.
- Construct overhead cover and add camouflage to create a hide position if time and materials are available.



**Figure 5-2**

**TTP: Use existing terrain for tank positions. Reinforce what is already there.**





## CHAPTER 6 COUNTER-RECONNAISSANCE

by 1SG Timothy Ross

*Darkness had fallen two hours ago. It was the unit's second night in the counter-reconnaissance zone. Intermittent moonlight reflected ominously off the rows of razor-sharp concertina wire that the engineers had placed that morning. In the shadow of the trees, the rows of mines looked like columns of infantry marching into battle. The lighter colored trail caused by their reflection provided a false horizon, making it easier to see the approaching enemy. The engineers had promised, "If we build it, they (the enemy) will come."*

*The squad lay in ambush on the rain-soaked ground -- in a barely discernible fold of terrain that afforded maximum cover and concealment. They were waiting for the enemy reconnaissance that would undoubtedly attempt to infiltrate their sector. The tension was thicker than low-lying fog. Rain, low temperatures, poor rations, past failures, personal doubt, and the anticipation of upcoming contact all contributed. Armed with anti-tank weapons and night-vision devices to enhance their killing capability, they were determined to succeed. They had a section of tanks for backup and they had aviation support. There was no room for failure. The "Old Man" had made that absolutely clear.*

**1. GENERAL.** The infantry company commander was on edge. This counter-reconnaissance mission was new to him. His soldiers had almost never worked with tank or aviation support. On top of that, the previous night had been a miserable failure. The enemy's divisional reconnaissance force had successfully infiltrated his sector and was now operating somewhere in the rear. His company had occupied the sector late in the day. They neglected to reconnoiter the area properly to confirm the S-2's intelligence preparation of the battlefield (IPB). He had no Class IV or Class V to build obstacles. The tank section had not linked up until after dark. Their positions had not been identified. Weapon systems failed to fire. He could not talk to the Kiowa Warriors that buzzed overhead. No information was coming over the net from battalion. It was impossible to know who was where in the sector. None of the supporting assets had been present when he put his plan together.

Excuses? Poor planning? Incompetence? It made no difference to the innocent, young soldier who was wounded during chance contact the previous night. He died of wounds before he could be evacuated. None of this would happen again if the commander had his way.

The company commander and the first sergeant spent the remainder of the first night reviewing and synchronizing the plan, coordinating assets, and confirming times and places. At the first sign of light, unit priorities shifted from personal hygiene and breakfast to reconnaissance and security patrols. The company commander's directive was to reconcile the actual terrain with the map and select the best ambush and obstacle locations for the brigade counter-reconnaissance fight. Anyone who can read a map knows that the ground often differs from what is on the map itself.

The unit completed its reconnaissance, determined the likely enemy avenues of approach in the daylight, and refined the obstacle and ambush sites. The first sergeant and platoon sergeants supervised the emplacement of obstacles and dissemination of information to the lowest level. Platoon leaders provided the commander sector sketches. After careful consideration of the tank section leader's advice, the company commander determined the best place to position the tanks. The fire support officer coordinated with unit forward observers to develop a fire support plan that supported the company commander's scheme of maneuver.

The company commander developed detailed graphic control measures that facilitated identifying the location of the enemy and calling for indirect fires. These control measures allowed an easy handover if the enemy passed through the depth of the zone. The company commander included the location of all friendly elements, preplanned targets, and obstacles. He made sure all elements received these graphics. He reinforced engagement criteria, engagement priorities, and measures for identification of friendly forces. Finally, the company commander imposed a "no-movement time" in the zone before the anticipated arrival of the enemy's reconnaissance forces. This simple move significantly reduced the amount of time required to clear direct and indirect fires and enhanced his unit's ability to acquire the enemy early. *Simply stated, if it moves, it is enemy; kill it.*

As darkness fell, the unit completed its final communications checks. The tank section leader, platoon leaders, squad leaders, Kiowa Warrior pilots, fire support officer, and company commander are glued to their handsets. Soldiers lay in wait contemplating the outcome of the upcoming fight. They are **READY!**

The soldiers of the fire team overwatching the obstacle kept their ears close to the ground. They hear the rumble of vehicles at the same time the observation post calls in the spot report. Without speaking a word, the rest of the squad is alerted and prepares for the engagement. AT-4s are up. M203s are loaded with illumination and high-explosive rounds. The machine gunner has the butt of his weapon against his shoulder. Tension eases as the adrenaline rush takes over. The tank, positioned to cover the mounted enemy avenue of approach, rotates its turret down the trail beyond the obstacle.

The enemy reconnaissance vehicles roll into the engagement area. They discover the obstacle. The squad leader whispers into his handset, "Two BRDMs, checkpoint two, time now." Several enemy soldiers exit the vehicles. They cautiously approach the obstacle. Suddenly night turns to day. The tank main gun fires, and the lead enemy reconnaissance vehicle erupts in a ball of flames. The M203 gunners fire their illumination, while the AT-4 gunners engage and destroy the trailing BRDM. Tank machine-gun fire joins the M240 and SAW fires to sweep the area clear of dismounted enemy. Team leaders fire claymores. Riflemen throw grenades. The squad leader reports "Two BRDMs and all personnel destroyed, time now."

The company commander smiles as he reports to the battalion commander that this enemy element will never see the main defensive area.

**2. DOCTRINAL BASE.** Counter-reconnaissance begins before initial occupation and continues throughout the depth and time of the defense. Traditionally, heavy forces (armor and mechanized infantry) or air cavalry units conduct counter-reconnaissance missions. The screen is a common counter-reconnaissance mission. It is often the cornerstone of a successful defense. The purpose of a screen is to identify and destroy enemy reconnaissance assets before they reach a unit's main battle area. Counter-reconnaissance forces provide the commander with invaluable information for formulating his defensive plan while preventing enemy reconnaissance forces from gaining information valuable to their attack.

**There is no guidance for how light infantry should integrate tanks in this fight.**

There is little mention of techniques, tactics, and procedures for conducting counter-reconnaissance operations in light infantry field manuals. According to **FM 7-10, *The Infantry Rifle Company***, "This operation entails denying enemy reconnaissance elements from gaining accurate information on friendly preparations through destruction of enemy recon or through deception." The mission is executed as a series of reconnaissance and security (R&S) patrols during daylight hours and ambushes (personnel and anti-armor) during hours of limited visibility. Observation posts are well forward and occupied continually. Forward observers man the observation posts. The unit places obstacles on mounted avenues of approach and early warning devices on dismounted avenues of approach.

**Keys to success in the counter-reconnaissance fight are:**

- ☛ **Unity of command**
- ☛ **A well-planned concept**
- ☛ **A mix of finders and fighters**
- ☛ **A contingency withdrawal plan**

**3. PLANNING.** The counter-reconnaissance zone is typically a large area. The execution of the plan is decentralized. Such an operation calls for a simple, yet well-planned, concept.

**Issue 1:** *How is the light infantry commander's plan affected by the addition of a tank platoon or section?*

**Discussion:** Rarely do light infantry and tanks operate in unison. This creates gaps in knowledge of how to employ tanks in with the light infantry. Tanks provide the light infantry commander with capabilities that he normally does not possess. To maximize the integration of these capabilities, the light infantry commander must understand them. In addition to considering mission, enemy, terrain, troops, and time available (METT-T), he must adjust his perspective to

consider how the addition of tanks to his force may influence execution. Failure to do so in the planning process almost certainly leads to failure in execution.

**EXAMPLE:** *Tanks play a major role in the light infantry commander's observation plan. The gunner's primary sight reads heat signatures out to 4,000 meters. The planner considers the best employment of his tank platoon/section. The armor asset can fulfill the roles of finders or finishers. The armor can execute its counter-reconnaissance role from a fixed site or by maneuvering to engage the enemy at different locations. The factors of METT-T and information provided by the subject matter expert that assists the planner determine the best role.*

**TTP:**

**Execute task organization of the company team at issuance of warning order.**

**Integrate the tank platoon/section leader in the planning process.**

**Focus on the roles of each participating element and how they support each other (overlap).**

**Realize the tank platoon/section leader is a subject matter expert.**

**Issue 2:** *Terrain will have the greatest impact on how the light infantry commander plans to employ the tanks in his zone.*

**Discussion:** Light infantry can traverse any type terrain. The addition of tanks in the counter-reconnaissance zone affects how the commander must look at the terrain. Tanks require more open and firm terrain. They can become mired in low-lying areas. They slow down in densely wooded areas. And they need open areas to engage targets. It is critical that the planner uses all available sources of terrain data to build his plan. The map is a good starting place, but not always accurate. The planner must analyze the terrain from his own standpoint and the perspective of the enemy. He must possess a firm grasp of how to use the terrain to his advantage to properly utilize all of his assets, maximize the stand-off range of tank weapons systems, and integrate the gunner's primary sight into the observation plan.

**TTP:**

**Seek out all information available about terrain in the area of operations (maps, aerial photographs, information provided by residents of the area).**

**Conduct ground or aerial reconnaissance before the occupation of the zone and completion of the plan.**

**Do not fall prey to the idea that vehicles are bound to the existing road network.**

**Issue 3:** *The addition of tanks to a light infantry unit drastically changes Combat Service Support requirements. These changes must be determined and accommodated during the planning process.*

**Discussion:** Light infantry unit resupply issues for counter-reconnaissance missions are customarily small. The unit normally deploys with enough Class I and Class V to be self-sustaining. Class IV is air-dropped or pushed forward with engineer support. Contingency plans usually provide for emergency resupply with air or by truck insertion.

*Tanks expend Class III and Class V in greater quantities. Develop a plan to meet these needs before you occupy the zone. It takes time to refuel a tank section or platoon. Build this into the plan to prevent running out of these essential supplies at a critical point in the counter-reconnaissance fight. Planners must consider routes in and out of the zone, location of the resupply points, and rates of consumption. Tanks require maintenance. Build time into the plan to compensate for maintenance.*

Tanks are a mobile platform. They can assist light infantry by hauling additional Class I and Class V without increasing soldier load. This requires coordination with the armor element to ensure that space is available.

**TTP:**

**Integrate tank platoon/section leader in planning process to ensure understanding of requirements.**

**Build timelines that allow for maintenance and resupply.**

**Fix and fuel forward.**

**Issue 4:** *The relationship between the armor element and the light infantry commander must be clearly defined.*

**Discussion:** An armor element can be attached or placed under the operational control of the light infantry commander. When under the operational control of a light infantry commander, the tank element usually has follow-on missions. This has a distinctive impact on the commander's plan. The light infantry commander has to establish a solid command relationship with the armor element. Planners have to ensure that additional missions are not imposed on the armor while performing the mission in zone.

**TTP:**

**Define clearly the relationship, OPCON or attached; it impacts planning.**

**Do not give the armor element additional parent unit missions that interfere with its role in the counter-reconnaissance zone.**

**Clarify and confirm exact start and end times of the relationship.**

**Remember that an element can support only one commander at a time.**

**4. PREPARATION.** The preparation phase of any operation is critical. Preparation begins with the receipt of the warning order and continues through the unit's "not later than" (NLT) time. It is the time for procuring assets and conducting rehearsals and pre-combat inspections. Everything is checked, rechecked, and then checked one more time.

**Issue 5:** *Battle drills differ between light infantry and tanks. Rehearsals prepare the units to operate as a combined force and provide a forum to enhance success.*

**Discussion:** Rehearsals are paramount to success. Attendance for all elements of the counter-reconnaissance fight is mandatory. This is the commander's opportunity to ensure all elements understand his intent and scheme of maneuver. It is the final occasion to confirm control measures, clarify questions, synchronize the fight, and adjust the plan. Rehearsals reduce the level of risk associated with the operation. Conduct rehearsals both in and out of the zone.

**TTP:**

**Task-organize early.**

**Involve all soldiers if possible; if not possible, ensure all key leaders are present and participating.**

**Plan timelines to allow maximum time available for rehearsing.**

**Prioritize rehearsals (most to least important).**

**Supervise at all levels.**

**Rehearsals can begin at lowest level upon receipt of warning order.**

**Issue 6:** *There is often a lack of urgency and visibility of the counter-reconnaissance fight. This tends to distract light infantry and tanks from their primary focus.*

**Discussion:** Light infantry and tanks require all available time to prepare for the mission together. These elements should focus exclusively on the impending mission. To be prepared for the counter-reconnaissance fight, the maneuver commander must receive his assets early. He cannot waste time developing an extensive tentative plan or conducting other missions. He must settle in the zone before the enemy does. The commander can complete his plan and conduct additional rehearsals in the zone, but to do so, he must have all of his assets.

The maneuver commander needs the information that reconnaissance of the zone provides him. Infiltrating the zone and conducting daylight R&S patrols gets the commander essential information. It confirms or denies initial IPB, allows time for emplacement of obstacles, identifies positions for tanks (tanks should be moved forward after initial reconnaissance clears the area), and sets the conditions for a successful execution. Armor that arrives just before the anticipated enemy movement is not prepared. They had no role in planning, missed rehearsals, and lack situational awareness.

**TTP:**

**Plan the counter-reconnaissance fight first.**

**Give priority of assets to the counter-reconnaissance commander.**

**Task-organize early.**

**Initiate movement, and conduct reconnaissance immediately.**

**Give this element no simultaneous missions.**

**5. EXECUTION.** Execution is the culmination of all planning and preparation efforts. Rubber meets the road in this phase of the operation. The execution of the counter-reconnaissance fight is decentralized. It provides many challenges for command and control. Success depends on many factors:

- ☛ **Disciplined and well-trained soldiers.**
- ☛ **Junior leaders empowered with the authority to make decisions and take initiative within well-defined guidelines of the commander.**
- ☛ **A solid, flexible plan distributed to the lowest level.**
- ☛ **Quality rehearsals, involving all elements, which will overcome the lack of combined arms (light infantry and tanks) training that exists in the Army.**

**Issue 7: How are armor elements integrated into the execution of the counter-reconnaissance fight?**

**Discussion:** The light infantry commander employs armor assets in the execution phase of the operation in different ways. He has the option to use the tanks as a maneuver force, from a fixed location, or as a combination of both (maneuver and fixed). Available assets can limit his approach to employment.

**EXAMPLES:**

1. *Tanks can be used as a finishing force and flex to the point of contact in support of the light infantry. This method works best during daylight, but can be used at night. Night operations require excellent coordination between elements, appropriate signals, and perfect situational awareness.*

2. *Tanks can also be employed in the find and finishing role from a fixed site. The tanks find the enemy with thermal sights or through spot reports from the infantry and kill with main gun. From a fixed sight, they provide support by fire to maneuvering infantry, have anti-armor ambush capabilities, and can overwatch obstacles.*

Terrain, size of the zone, and level of combined arms experience are considerations for how to best employ the tanks. One method is to use the maneuver technique during daylight and keep the tanks in a fixed site at night. Tanks always work best as a section. Light infantry are excellent additional security elements for the tanks. They must execute in unison.

**TTP:**

- ☛ Use tanks in find-and-finish roles.
- ☛ Stationary tanks leave less signature at night.
- ☛ Identification of friendly forces' measures, communications, and situational awareness is key. Use reverse slope and low ground where possible to mask the presence of tanks.
- ☛ Maintain tank section integrity.

**Issue 8:** *Does the introduction of tanks into a light infantry element affect command and control?*

**Discussion:** An increase in the size of any element impacts command and control measures. Standing operating procedures are different. Signals, communications procedures, and tactics invariably differ. This need not affect the execution if the elements link up early and identify the differences during planning and rehearsals. Graphical control measures, identification of friendly forces' measures, and disciplined communications procedures lend to the successful execution of the counter-reconnaissance fight. Allowing squad leaders to talk to tank commanders, tank commanders to talk to aviation assets, or forward observers to talk to the commander does not undermine the control of the commander and facilitates initiative, reaction time, and clarity of information. Of course, it requires rehearsal, confidence, and discipline to be effective. Checkpoints are used to pass the enemy location through the sector until they are in a position to be engaged. "No movement times" during hours of limited visibility simplify the identification of enemy and the clearance of direct and indirect fires. The commander in this decentralized fight should locate himself where he can best observe the zone and monitor the fight on his radio while his well-trained and well-rehearsed force annihilates the enemy.

**TTP:**

- Cross talk at the lowest level decreases reaction time.
- "No movement times" facilitate identification of enemy forces and speed target engagement.
- Radio discipline is paramount; everyone must monitor.
- Enforce "no movement times" to prevent fratricide.
- Maintain situational awareness through use of strict control measures and reporting.

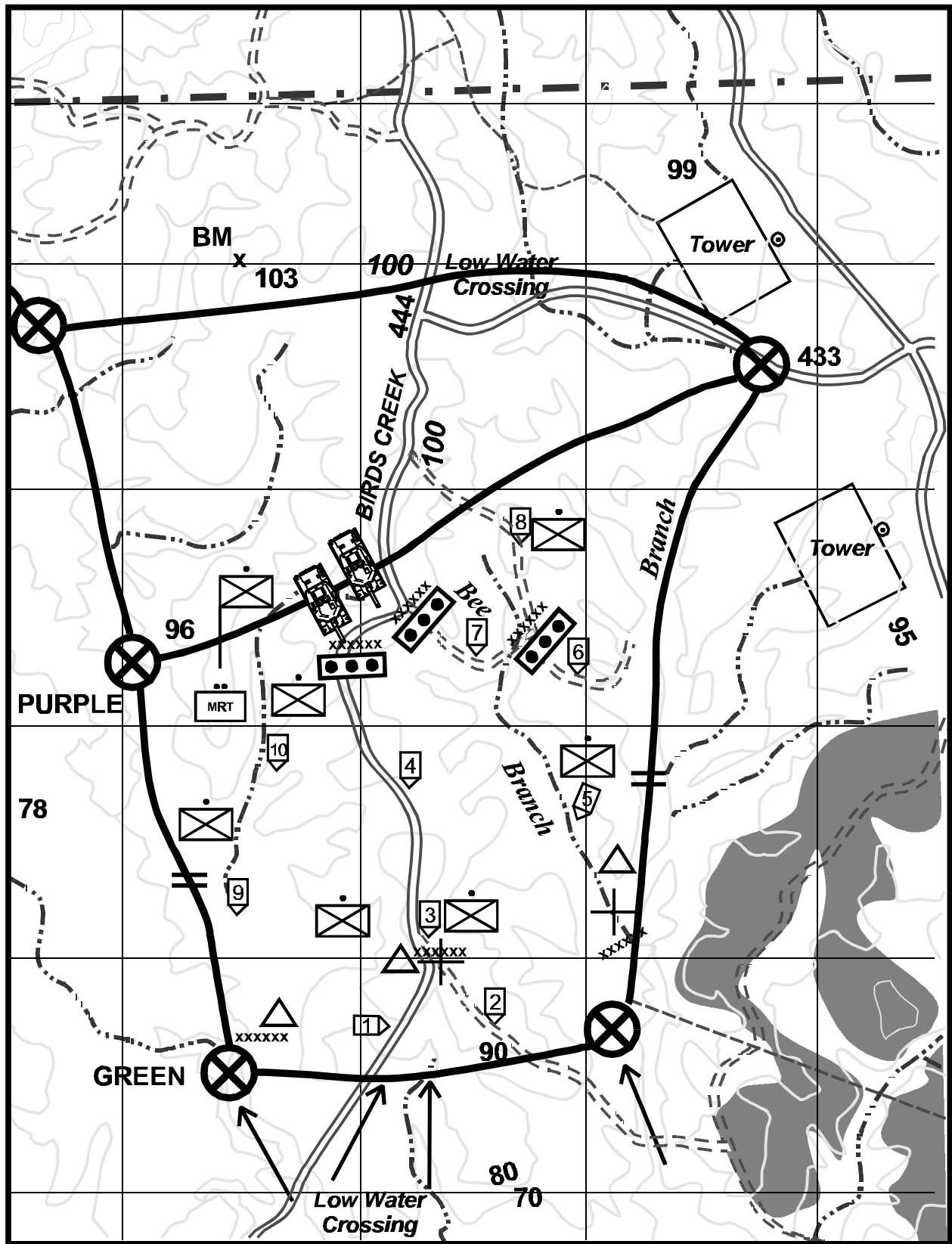


Figure 6-1



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## **CHAPTER 7**

# **SECURITY OF KEY ASSETS**

by CPT Nicholas Panagakos

**1. GENERAL.** The Light Infantry Brigade Combat Team is task-organized with a complicated mix of combat, combat support, and combat service support units. Within this organization, there are always assets that do not have the organic capability to secure themselves. Such assets may include:

- ☛ **Q-36 Radar of the FA battalion**
- ☛ **Reverse Osmosis Water Purification Unit (ROWPU)**
- ☛ **Brigade Tactical Operation Center (TOC)**
- ☛ **Brigade communication assets**
- ☛ **Other assets deemed key by the commander**

These assets are important parts of the Brigade Combat Team. Their destruction will hamper the brigade's ability to accomplish the mission. Therefore, the commander must decide how to secure them. Normally there are only two courses of action available:

- ☛ **Require the parent unit to provide the security required.**
- ☛ **Task-organize a combat element to provide the necessary security.**

The parent unit support is unlikely. Current CSS organizational structure frequently prohibits soldiers from conducting security operations, associated patrols, and other tasks essential to providing even the most fundamental local security. By default, task-organize is the usual and probable choice. This makes it tough on commanders and their units. They have the difficult task of deciding how to allocate valuable combat assets to protect these critical C<sup>2</sup>, logistics, and other specialized nodes.

Regardless of the choice the commander pursues, make sure that the security element is a combined arms team and possesses the combat power to counter any enemy threat.

***Protect your key assets. Task-organize combat units to provide them with the force protection necessary to survive on the battlefield.***

**2. DOCTRINAL BASE.** The schoolbook solution and one most commanders favor is tasking a subordinate command for a rifle platoon or tank section to serve as security element. This unit is then assigned to secure and protect the brigade TOC, Q-36, ROWPU, or other assets. It is also a doctrinal consideration.

**3. PLANNING.** A better idea may be to consider task-organizing an element to accomplish the security mission. Put together a combined arms team rather than assigning an infantry-pure or tank-pure unit to provide security.

**Issue:** *Pure units have inherent strengths and weaknesses. Since the security element must possess the combat power to defeat the enemy threat over a wide spectrum of scenarios, a combined arms team is the answer. The elements of a combined arms team complement each other's strengths and support each other's weaknesses.*

**EXAMPLE:** *In restrictive terrain, the infantry has the ability to patrol along the dismounted enemy avenue of approach. Firepower is limited to small arms, some anti-armor weapons, and NODs. They lack the internal transportation assets to move when the element they are guarding moves. Tanks, on the other hand, have the firepower, mobility, and enhanced optics, but in restrictive terrain lack the ability to provide close protection. They are, in fact, vulnerable to the very threat they are defending against. In addition, tank crews are not trained to conduct aggressive counter-reconnaissance patrols.*

**Discussion:** By creating a combined arms team, the infantry and armor become a formidable force, capable of reacting to a variety of enemy threats with the speed, maneuverability, and firepower needed to win. The infantry can man checkpoints overwatched by tanks. They can conduct patrols and counter-ambushes overwatched using the tank's superior thermal imaging system. This same system can guide infantry to potential enemy observation posts (OPs) by using thermal imagery to help guide unit patrols to potential hot spots.

Commanders must consider the risk when augmenting support elements with infantry, armor, or a combination of both. The first consideration is whether the Q-36, ROWPU, TOC, etc. can secure themselves. If so, the commander can deploy more combat elements forward to fight the enemy.

On the other hand, if support assets are inadequate to secure their equipment, the commander must determine the number and mix of the combat force needed to accomplish the task. This decision depends on how aggressively the enemy is pursuing the destruction of these assets. The commander responsible for securing the assets should confirm his estimates by conducting detailed IPB and METT-T analyses. He can use the results to recommend to his higher commander whether or not to provide the necessary assets. The accompanying illustrations highlight techniques for securing assets within the Brigade Combat Team:

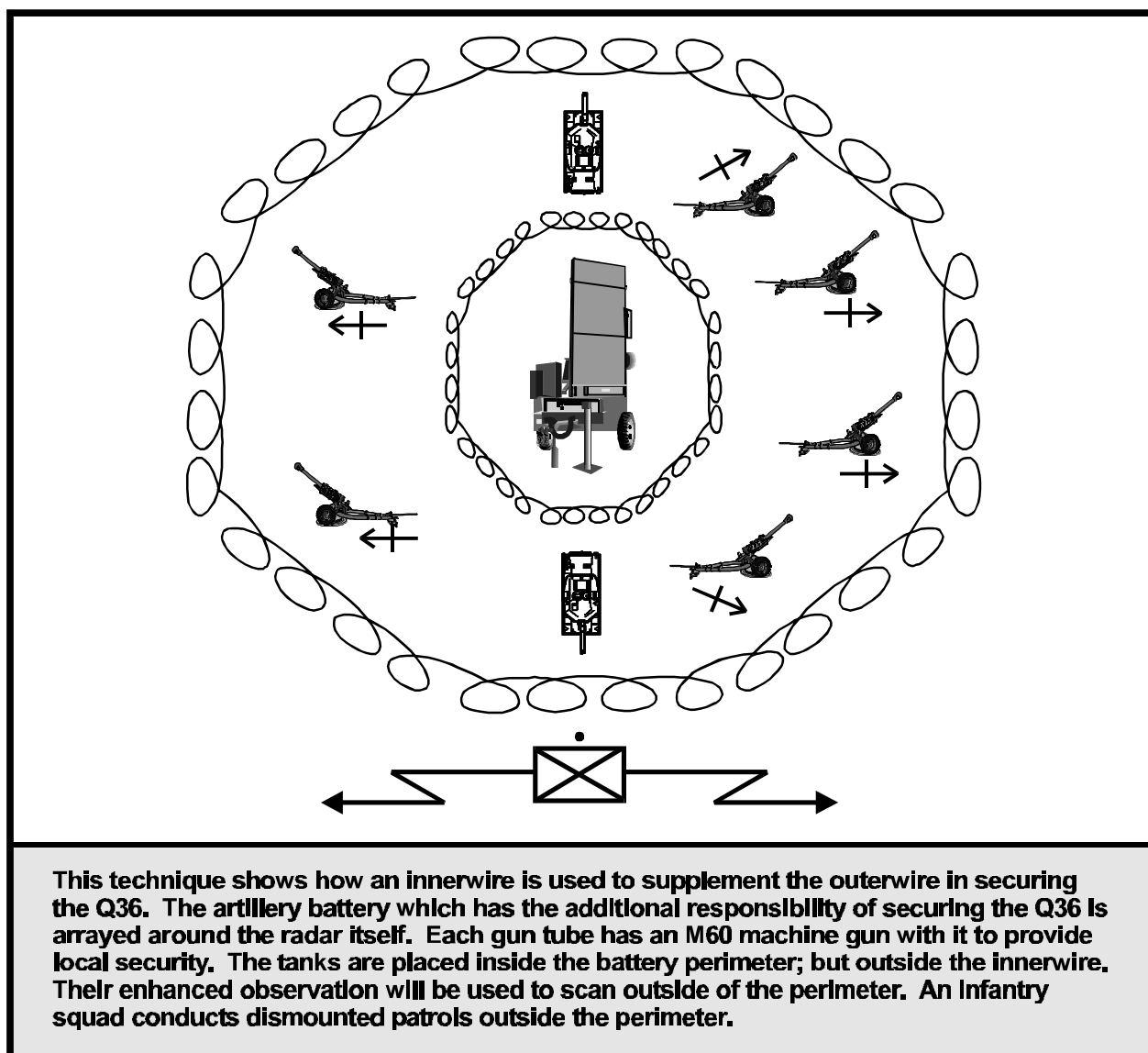
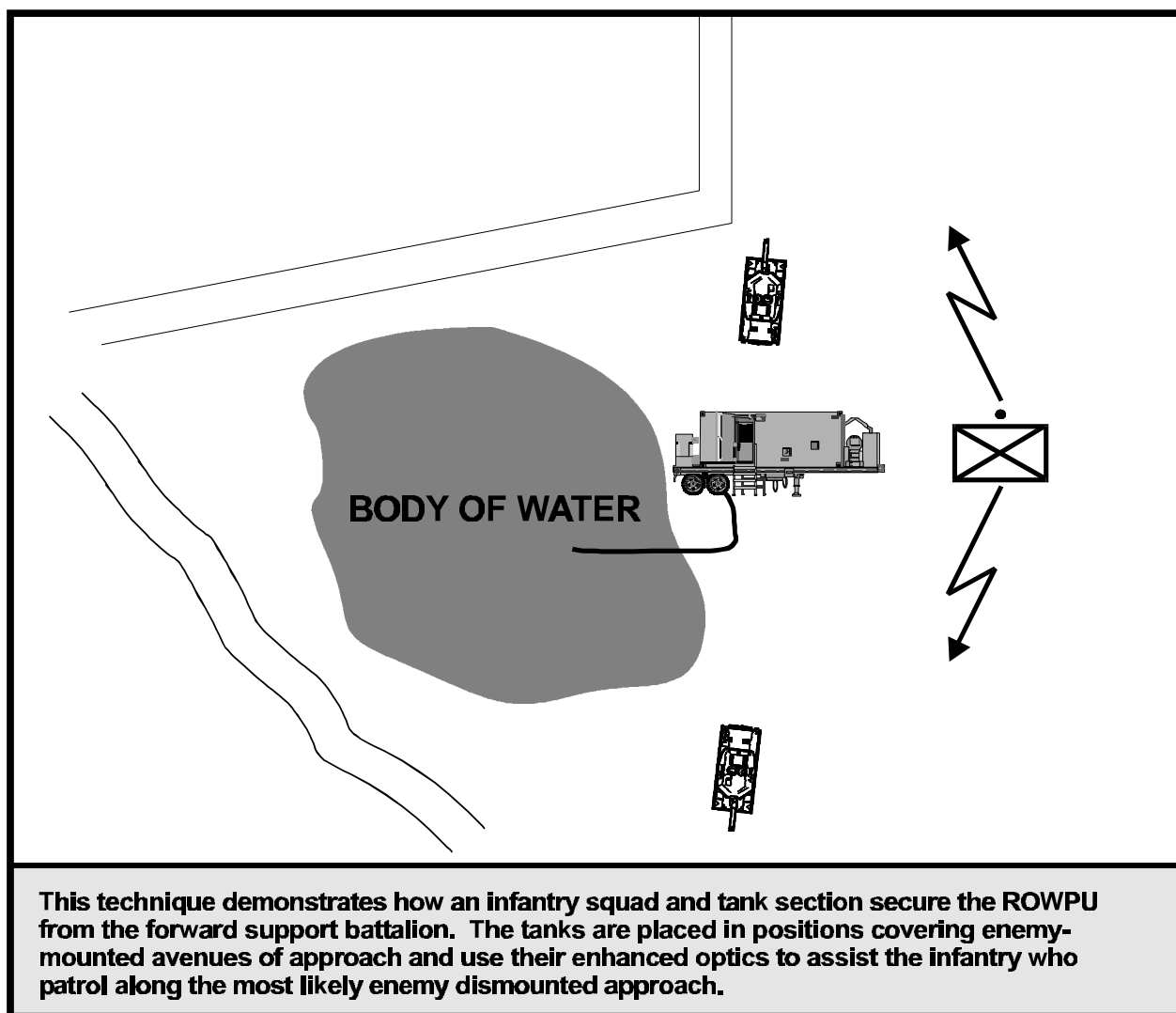


Figure 7-1



**Figure 7-2**

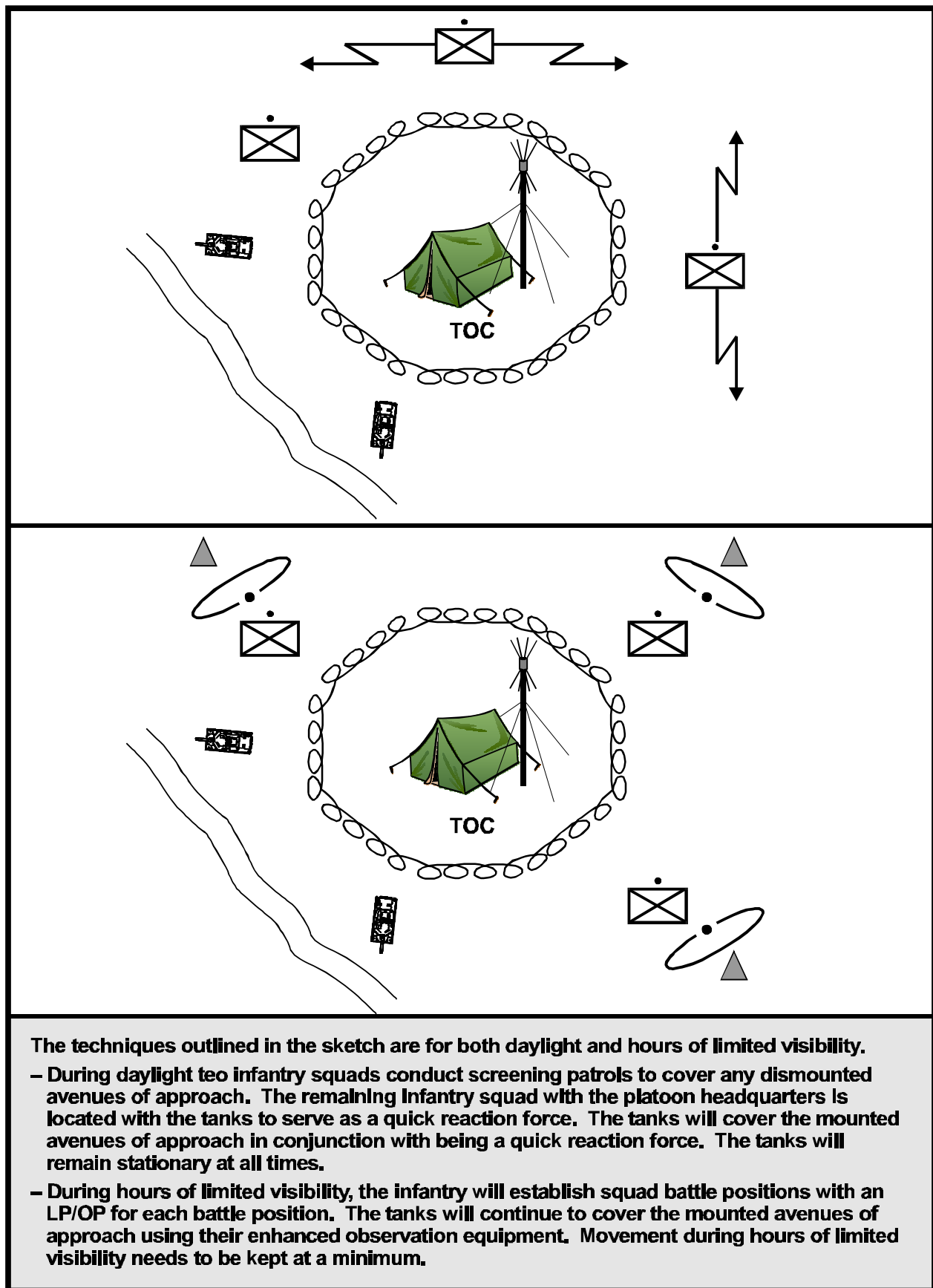


Figure 7-3

**TTP:**

**Infantry and armor elements tasked with the security mission need to be alerted as early as possible.** This will allow the two units to plan and issue an operations order and allow for preparation of equipment and rehearsals prior to execution.

**The senior leader of the security element is responsible for the employment of that element and the security of the key asset.** This will allow input on the defense and survivability of the location. He then answers to the unit commander; i.e., the brigade XO for the TOC security or the battery commander for the Q-36.

**The security element leader needs to be a member of the leader's reconnaissance for the proposed location prior to the arrival of the key asset to properly clear and secure the area.**

**Establishing security for a key asset is no different then setting in a defense. A priority of work must be set and followed for all tasks to be accomplished.**

**Ensure the tanks are given sectors of fire to observe which enable them to exploit the use of their enhanced optics.**

**The tank's thermal sight can be used to guide infantry patrols toward potential enemy locations.**

**The security element's sole mission is to provide protection for the key asset.** They should not be tasked with performing other activities for the host unit, i.e., guarding LOGPACs, pulling radio watch, escorting other vehicles, and other unrelated tasks.





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## CHAPTER 8

# COMBAT SERVICE SUPPORT

by CPT William Carter

**1. GENERAL.** There are numerous articles on combat operations where authors state that commanders are responsible for setting conditions before going into battle. This setting of conditions also applies to logistics operations. His start point in controlling this operation begins with his company headquarters, the executive officer, first sergeant, and supply sergeant who, according to **FM 7-10, *The Infantry Rifle Company***, is the element responsible for coordination and execution of combat service support (CSS) operations within the company. In most cases, an armor platoon receives their supplies directly from the organic headquarters element of their company. The infantry commander must control the flow and timeline of this resupply action to ensure it does not interfere with his own operational requirements. The best way to do this is to ensure that CSS operations for the company and armor platoon are jointly coordinated. They cannot and must not be coordinated separately regardless of the command relationship.

*Having a fuel HEMTT arrive at your company assembly area 30 minutes before crossing the line of departure will definitely have a negative effect on the overall operation, especially if the commander is not expecting it.*

**2. DOCTRINAL BASE.** According to FM 7-10, “sustaining his company in battle is one of the greatest challenges to the infantry company commander.” With the addition of four tanks from a tank platoon placed under his operational control, a commander’s responsibility and challenges greatly increase.

**Issue:** *Adding tanks to the equation requires an infantry company commander to anticipate additional support requirements. The question is, How does he do so without interfering with his operation?*

**Discussion:** As in most JRTC rotations, an armor unit is attached to the brigade. That tank company will arrive with limited assets from its company’s headquarters and battalion to support it. These assets will most likely include fuel HEMTTs, cargo vehicles, medical assets, and an organizational maintenance slice, as well as a direct support (DS) maintenance component. The company can suballocate these CSS assets to tank platoons as the mission requires. If these tank platoons are allocated out to support infantry battalions and companies, they cannot operate without some support from the infantry companies and battalions, regardless of the command relationship under which they are sent to support those subordinate elements. They will depend

on some sort of CSS support to accomplish their mission. This heavy reliance on CSS is something new to most infantry company commanders. The trick for the infantry company commander is to ensure that support of this temporary armor asset does not interfere or disrupt his operations.

**3. PLANNING.** The bottom line for an effective joint CSS operation is to know and anticipate current and future CSS requirements. Additionally, the units must determine how and when the supplies will arrive. The company commander should receive a backbrief from the armor platoon leader on the logistic status and logistic plan for the platoon. Ideally, the armor platoon leader or platoon sergeant and the infantry company's executive officer will develop and forecast their supply requirements together. The armor platoon leader will send his requirements to his company headquarters element that is usually located in the brigade support area (BSA). The executive officer will pass his company requirements to the battalion S4 and the company supply sergeant along with the armor platoon's requirements. The battalion S4 and the company supply sergeant should coordinate this resupply operation with the battalion Headquarters and Headquarters Company (HHC) commander and the armor company supply sergeant or commander. If properly organized and coordinated, this redundancy of passing information concerning supply requests should make for a more effective resupply operation and minimize the use of vehicles. This coordinated effort may prevent this type of scenario:

*The armor platoon sergeant makes a request to his headquarters element for resupply of ammunition and a two-day supply of meals, ready-to-eat (MREs) for his platoon. The infantry company that he is supporting, Alpha Company, also submitted a request for water and some class VIII (medical) items to their battalion S4. The armor company sends a logistics package (LOGPAC) to his platoon located near "Carnis village." The infantry battalion sends its LOGPAC to Alpha Company's trains location just north of Carnis village. This infantry LOGPAC left the BSA 15 minutes after the armor LOGPAC. All the vehicles on both LOGPAC are half-filled with supplies. When both LOGPACs are at the site, they create a large signature and reveal the company's location to the enemy. The Cortina Liberation Front (CLF) quickly fired 10 rounds of 81-mm mortars on the company's area, destroying the HEMTT and all the supplies from both LOGPACs. Incidentally, the armor platoon had extra water and the infantry company had extra MREs.*

This scenario is due to poor planning and coordination back at the brigade support area (BSA), but the company and the armor platoon leader will be the ones most affected. The company commander and armor platoon leader working together can avoid the problems associated with such a situation. Units should not use two separate trucks or two separate LOGPACs to carry supplies going to the same location just because different units sent the request. A small LOGPAC is easier to secure and does not give as large a signature as a large LOGPAC or numerous LOGPACs. To make this work takes coordination between the infantry company, the Forward Support Battalion, the infantry HHC commander, and the armor company. Prior planning and coordination is required to succeed in CSS operations.

**ARM -** The armor platoon leader must have a plan for redistribution of ammunition and be prepared to brief the infantry commander on this plan. After an engagement, the platoon should

redistribute ammunition among the tanks. It is better to have four tanks with 20 rounds than two tanks with 40 rounds.

**FIX** - The commander must understand that tanks need to conduct Preventive Maintenance Checks and Services (PMCS) daily. He must allow this to occur, but can determine when based on METT-T. The armor platoon leader needs to brief him on the maintenance status of the tanks and inform the commander of any changes to that status. The armor platoon leader must ensure his soldiers do the PMCS by the technical manual and not by memory.

The commander needs to consider contingencies for inoperative tanks. He must have a plan to support and provide security for maintenance and recovery operations. The tank crew will conduct operator repair and self-recovery operations, if possible. The ideal scenario is to repair the equipment as far forward as possible. If it cannot be fixed within two hours, the commander must have a plan to secure the maintenance/recovery team while they evacuate the tank for repairs. The armor company headquarters elements will transport the tank to the unit's maintenance collection point for repair. The commander must be aware that an M113 armor personnel carrier (APC) and possibly an M-88 medium armored recovery vehicle, a 56-ton vehicle, will be working in his area of operations during repair and recovery operations. Tank maintenance operations provide a large security problem. Noise, light, and activity are inherent in any type of armor maintenance, repair, or recovery operation.

**FUEL** - Keeping the tanks fueled is the most critical requirement faced by the armor platoon leader. The armor platoon leader must constantly keep the company commander abreast of his fuel status. The armor company's headquarters elements should conduct refueling operations in conjunction with the infantry company's LOGPAC operations. Units with tanks attached should always incorporate fuel HEMTTs as part of every company LOGPAC no matter what the fuel status of the tanks. **It is essential to keep the tanks topped off.** It is dangerous for everyone involved conducting a "911 emergency resupply mission." A nonscheduled fuel draw from the BSA, which has minimum fuel-holding capability, can affect the whole brigade operation. An emergency fuel mission will disrupt the battle momentum of the company.

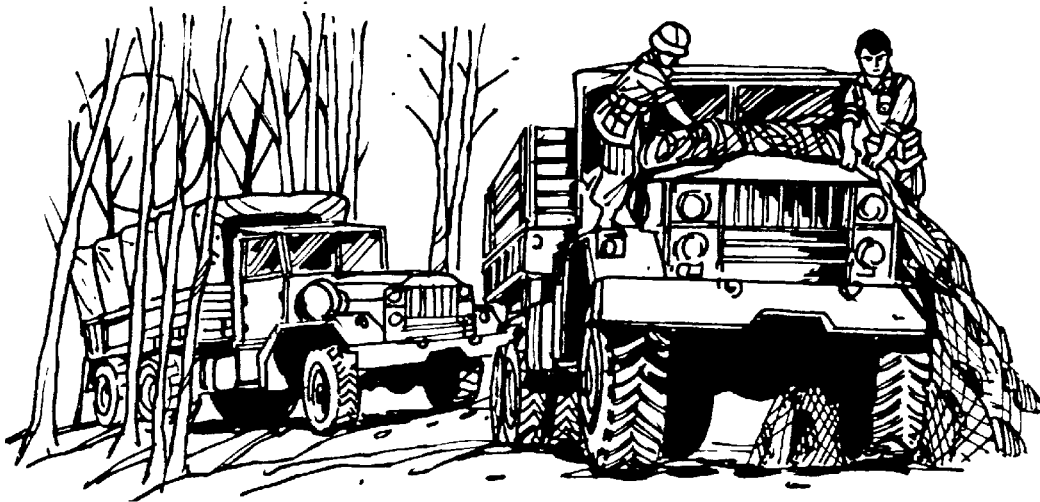
**MAN** - The infantry company commander should have his platoon medics and combat lifesavers practice techniques for extracting wounded soldiers from tanks and loading them to litters on an M113 APC ambulance. All armor headquarters elements have at least one M113 APC ambulance and usually configure their maintenance APC to carry litters too. **FM 8-10-6, *Medical Evacuation in a Theater of Operations***, details techniques for extracting wounded from tanks without causing further injury and for loading procedures for the M113 APC ambulance. The senior medic in the company should request additional class VIII, such as burn pads and IVs, for treating burns.

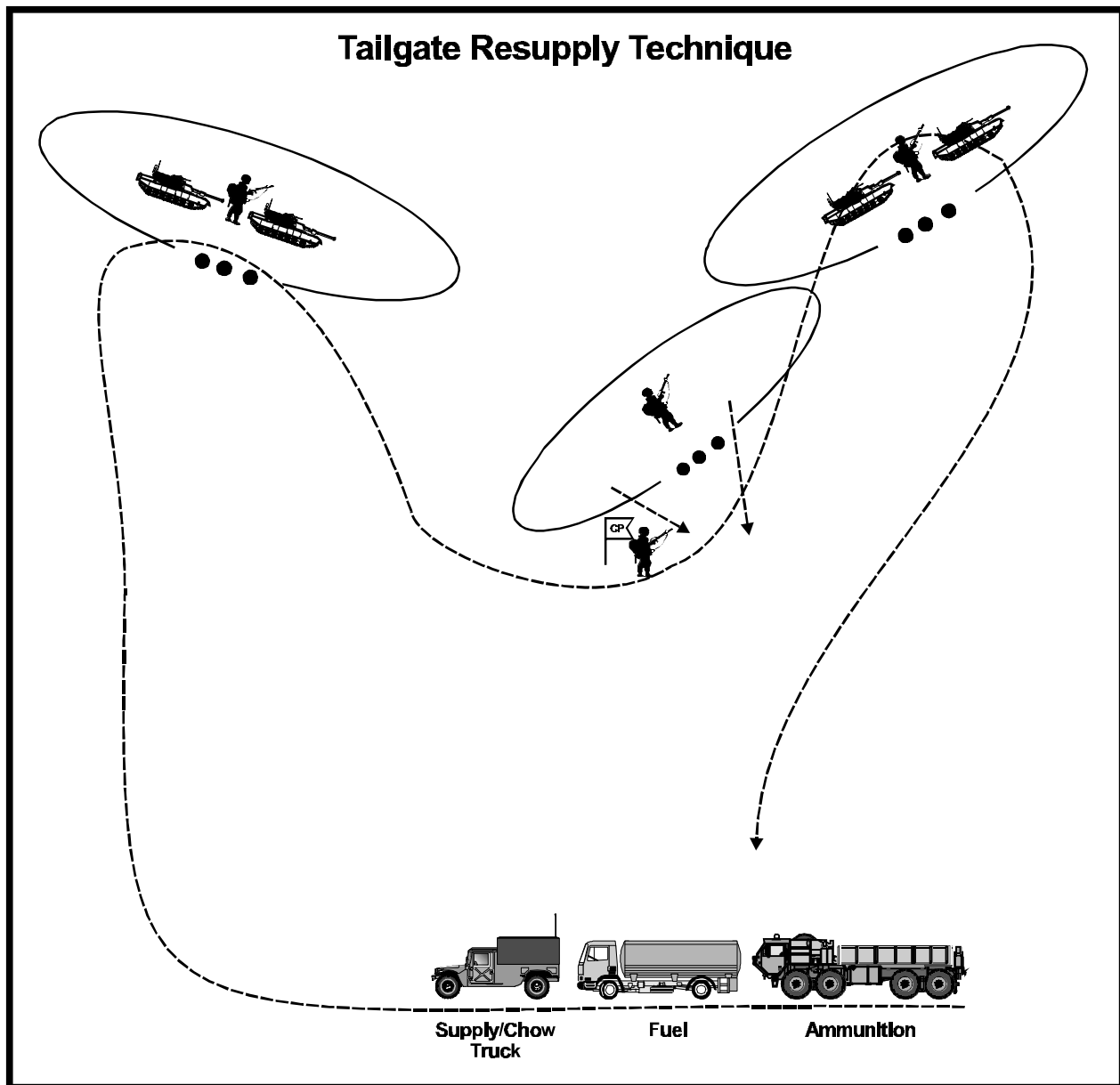
**TRANSPORT** - Tanks can carry additional supplies for the infantry company. This transportation asset is rarely considered by commanders. Tanks are ideal for carrying additional water, critical supplies, wounded or injured men, and ammunition (to include mines and mortar rounds).

**4. EXECUTION.** Always incorporate the armor platoon's LOGPAC with the infantry company's LOGPAC. This eliminates the need for coordinating twice for vehicle security. Additionally, it should reduce the signature that multiple supply operations create. The HHC

commander in the BSA should coordinate with the headquarters element of the armor company concerning LOGPAC operations or vice versa. Before sending a supply request, the commander must determine the type of resupply technique he wants to execute and understand the pros and cons for each. The commander should execute a resupply technique based on the battalion commander's guidance and METT-T.

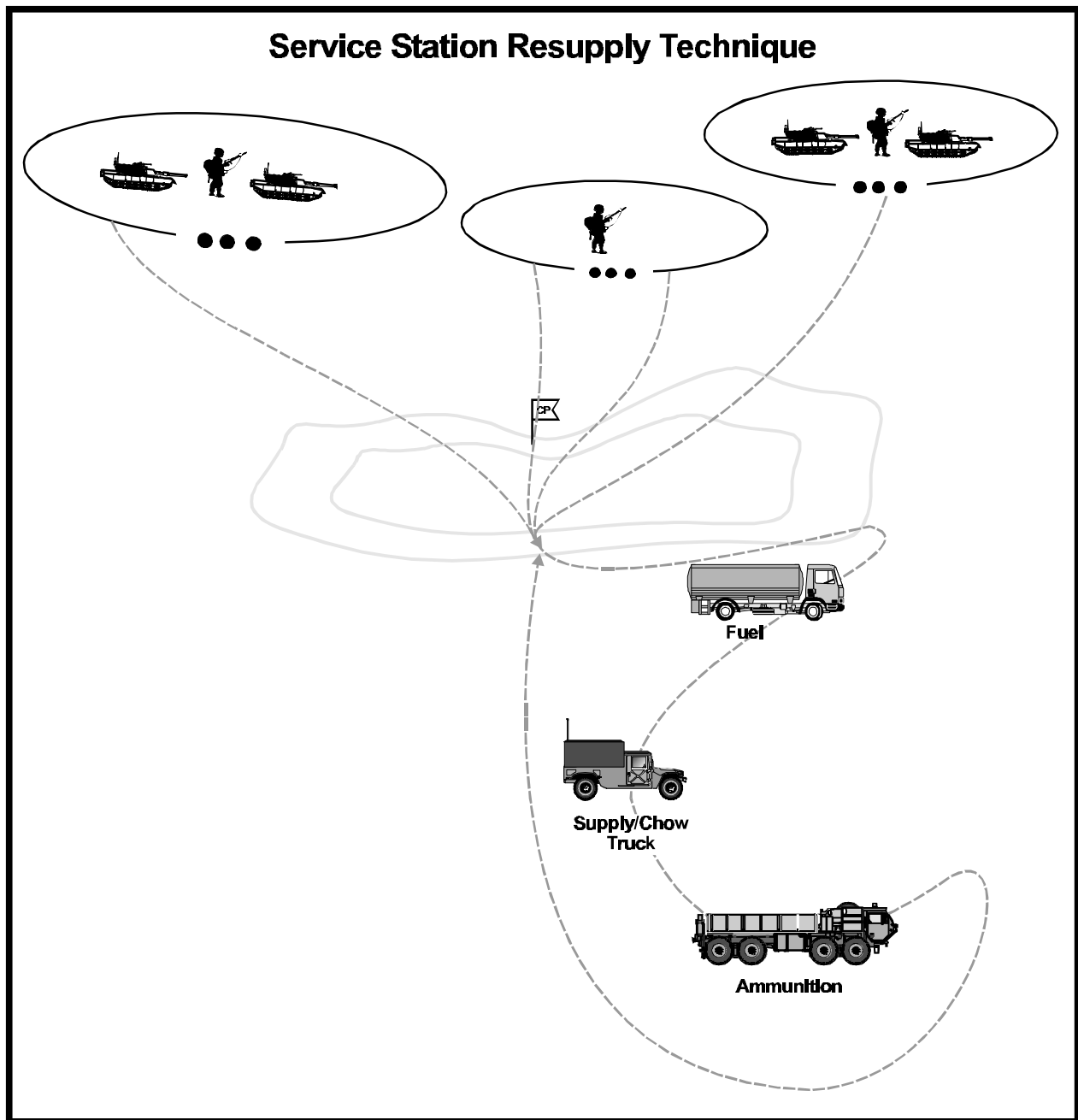
★ ***“In-Position,”*** also called the ***“Tail Gate”*** technique -- supplies come directly to the elements in the company trains. For this technique, units do not have to move the supplies from one location to another, but this operation may provide the enemy a signature of the company's location (see Figure 8-1).





**Figure 8-1**

★ ***“Out of Position,”*** also called ***“service station”*** technique requires the tanks and the soldiers to leave their current position to receive the supplies. This technique allows the resupply operation to take place away from the company’s area of operations (AO) or positions and helps prevent the supply operation from revealing their exact location to the enemy. However, company vehicles or soldiers will be used to transport the supplies to their final destination (see Figure 8-2).



**Figure 8-2**

Company commanders can also use a combination of these techniques. The company must have a plan on how it will receive supplies. The company must rehearse and develop battle drills to ensure quick and secure resupply operations.

*Having the supplies just show up in the company's AO, then choosing PVT Smith and Jones, who happen to be in your vision, to get the supplies off the HMMWV can have a devastating effect, especially in "Cortina."*

★ **Another resupply technique not discussed is "pre-positioned" or "cache."** Chapter 8, FM 7-10, covers these resupply techniques in more detail. An additional consideration a commander must make concerning resupply operations with an armor platoon under operational control is where to receive the supplies. The commander must find a location for the operation that is covered and concealed and in unrestricted terrain for fuel HEMTTs to travel. This can be part of his IPB process. These vehicles are not able to go where the tanks can. Just because a tank got to a position does not mean a HEMTT can go there too. If a fuel HEMTT became stuck or damaged, it would affect the whole brigade's operation. This asset is hard to replace on the battlefield.

Finally, vehicles should not return empty to the combat trains or BSA. The infantry company commander should use the LOGPAC vehicles to backhaul soldiers killed in action, routine casualties, enemy equipment, equipment needing further repair, sling sets, and trash.

**TTP:**

- **Infantry commanders must have well-developed plans to execute and support resupply operations.**
- **The armor platoon leader must brief the commander on the armor logistic plan and status.**
- **The armor platoon leader should develop his supply request in conjunction with the company first sergeant or executive officer.**
- **Include HEMTT fuel trucks in all company LOGPAC operations.**
- **Plan to have inoperative tanks evacuated to a unit maintenance collection point if it cannot be repaired in a far forward area within two hours.**
- **Medics and combat lifesavers need to know the techniques for extracting and treating wounded tankers.**
- **The commander must thoroughly plan the technique and choose the location that his company will receive and distribute supplies.**
- **Commanders need to pick suitable terrain for HEMTT conducting resupply operations.**
- **Use LOGPAC to backhaul personnel and material to the combat trains or BSA.**

**5. CONSIDERATIONS.** The following information will assist leaders in planning the support requirements for tanks.

★ **Refueling and rearming of a tank platoon--four tanks--is approximately 30 minutes under ideal conditions.**

★ **A single tank takes 10 minutes to refuel.**

★ **A tank platoon can only operate for nine to 10 hours without refueling.**

★ **The drain on the batteries from thermal sights requires the tanks to run their engines approximately every hour for about 15 minutes.**

### **M1A1 (ABRAMS) - Main Battle Tank**

**Fuel Capacity:** 520 gallons

**Consumption Rate:** A tank will need approximately 300 gallons every eight hours; this will vary depending on mission, terrain, and weather.

0.6 miles per gallon.

60 gallons per hour when traveling cross-country

30+ gallons per hour while operating at a tactical ideal

10 gallons basic idle

A mine plow will increase the fuel consumption rate of a tank by 25 percent

#### **Mobility Characteristics:**

Maximum speed 42 miles per hour

Cross-Country speed 30 miles per hour

Operating Range (road) 280 miles

Operating time 8 to 48 hours

#### **Basic Load for a Tank:**

Main Gun 40 rounds (M1A2 42 rounds)

Commander's 50 Caliber MG 1,000 rounds

M240 7.62 MG (COAX)/Loader's M240 MG 10,800 rounds

Smoke Grenades 24 rounds

#### **References:**

**FKSM 17-15-3, Tank Platoon SOP**

**FM 7-10, The Infantry Company**

**FM 17-15, Tank Platoon**

**Draft Tactics, Techniques and Procedures for Light Infantry Company  
Employment of Tank Platoons in Restrictive Terrain, Headquarters, I (U.S.) Corps**



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## APPENDIX A

# INFANTRY RIDING ON M1 TANKS

### EXTRACT FROM FM 7-8

FM 7-8

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### 2-47. INFANTRY RIDING ON ARMORED VEHICLES.

Soldiers ride on the outside of armored vehicles routinely. As long as tanks and infantry are moving in the same direction and contact is not likely, soldiers should always ride on tanks.

a. **Guidelines for Riding on all Armored Vehicles.** The following must be considered before soldiers mount or ride on an armored vehicle.

(1) When mounting an armored vehicle, soldiers must always approach the vehicle from the front to get permission from the vehicle commander to mount. They then mount the side of the vehicle away from the coaxial machine gun and in view of the driver.

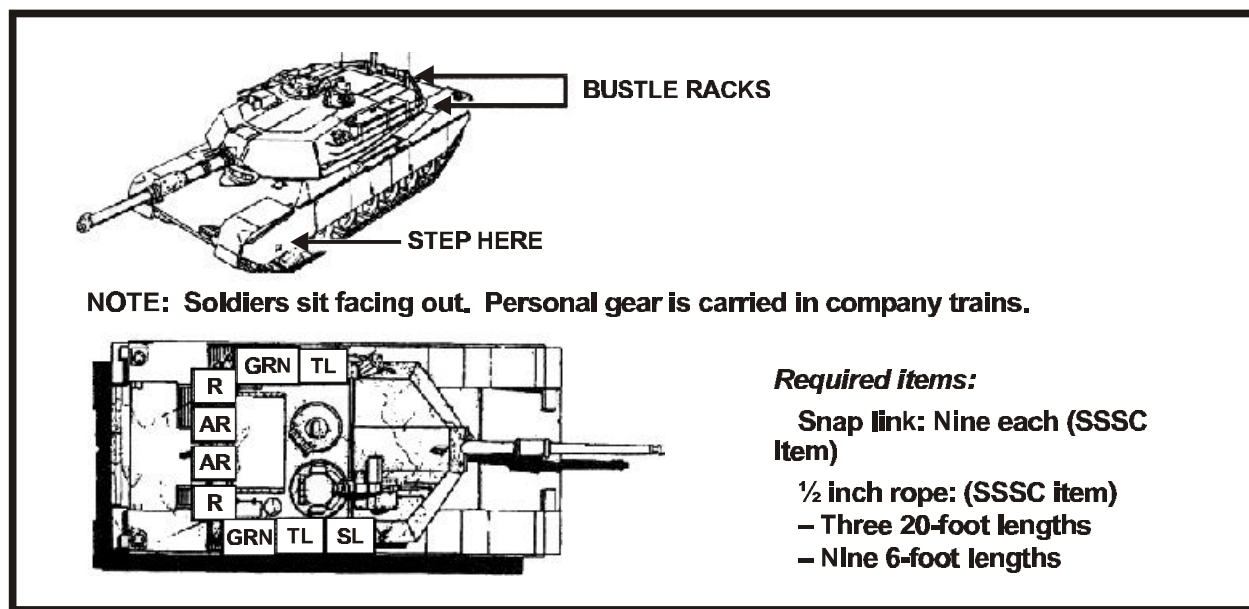
(2) If the vehicle has a stabilization system, squad leaders ensure it is OFF before giving the okay for the vehicle to move.

(3) The infantry must dismount as soon as possible when tanks come under fire or when targets appear that require the tank gunner to traverse the turret quickly to fire.

(4) All soldiers must be alert for obstacles that can cause the tank to turn suddenly and for trees that can knock riders off the tank.

b. **Guidelines for Riding on Specific Armored Vehicles.** The following information applies to specific vehicles.

(1) **M1.** The M1 tank is not designed to carry riders easily. Riders must NOT move to the rear deck. Engine operating temperatures make this area unsafe for riders. (Figure 2-74.)



**Figure 2-74. Mounting and Riding Arrangements on an M1.**

(a) One infantry squad can ride on the turret. The soldiers must mount in such a way that their legs cannot become entangled between the turret and the hull by an unexpected turret movement. Rope may be used as a field-expedient infantry rail to provide secure handholds.

(b) Everyone must be to the rear of the smoke grenade launchers. This automatically keeps everyone clear of the coaxial machine gun and laser range finder.

(c) The infantry must always be prepared for sudden turret movement.

(d) Leaders should caution soldiers about sitting on the turret blowout panels, because 250 pounds of pressure will prevent the panels from working properly. If there is an explosion in the ammunition rack, these panels blow outward to lessen the blast effect in the crew compartment.

(e) If enemy contact is made, the tank should stop in a covered and concealed position, and allow the infantry time to dismount and move away from the tank. This action needs to be practiced before movement.

(f) The infantry should not ride with anything more than their battle gear. Personal gear should be transported elsewhere.★





## APPENDIX C

# GROUND-TO-TANK COMMUNICATIONS

by CPT William Carter and Mr. Jack Jory

**NOTE:** This article describes the procedure used to install an external intercom control unit on an M1A1 tank that was part of a special project. This intercom unit was successfully tested at Fort Lewis, WA, using 22 tanks. The equipment and procedures used in this special project may not be suitable for other active Army units because some M1A1 tanks have or will soon have the new AN/VIC-3 intercom systems installed. The new AN/VIC-3 intercom system should make the installation of an external phone much easier.

**1. GENERAL.** The requirement for light infantry soldiers on the ground to communicate with a tank crew in an operation was a significant and reoccurring observation made during this rotation. The C-2296 VRC Intercom Control Unit mounted to the back of the M1A1 tanks proved to be instrumental in supporting this communication requirement. The C-2296/VRC Intercom Control Unit can be described simply as the fifth intercom control unit in the tank intercom system. The only difference to this intercom unit is that it is located outside the tank rather than inside as are the other four units.

The external intercom control is mounted on the right rear of the M1A1 tank between the grill door and right stop light. An ammunition can is used as an external phone box at this location and wired to connect the external intercom system. This affords the phone some protection from dirt, weather, and external hazards. External binding posts are added to the external system to allow soldiers to include the tanks in a company or platoon “hot loop” of field phones.

**2. INSTALLATION.** Install the interconnecting cable between the tank driver’s C-10456 Intercom Control Unit and C-2296/VRC Intercom Control Unit.

- ☛ Route the cable from the C-10456 Intercom Control Unit located in the driver’s position to the C-2296/VRC Intercom Control unit located in the right rear of the tank by securing the cable to existing cables using plastic tie raps.

- ☛ Route the intercom cable down and across the floor of the tank’s hull through a spare grommet in the firewall that leads into the battery box.

- ☛ Route the intercom cable out of the hull through the hole used for the tail-light wiring.

☛ **Add a 10-ohm, half-watt, fixed resistor between pin four of TB61 and pin one of TB62 of the C-2296/VRC Intercom Control Unit to lower the receiver volume control.** This should prevent possible audio feedback that may occur if the volume control is set on the maximum position.

☛ **Add a second A-80 microphone amplifier assembly to the C-2296/VRC Intercom Control Unit to boost the audio from the handset.** This is required because there is no C-2297/VRC Intercom Control Unit in the system to amplify the signal coming from the AM-1780 Intercom Amplifier located in the tank.

**3. MODIFICATION WORK ORDERS (MWOs).** Mr. Jack Jory, Logistic Assistance Representative (LAR) from the U. S. Army Communications-Electronics Command (CECOM), and the Electronic Section of the Directorate of Logistics at Fort Lewis, WA, designed a system to enhance the communication between the troops on the ground and the tank crews. This system was developed for local field testing only by trained personnel. Twenty tanks were successfully outfitted and tested with this intercom system.

*Commanders may authorize special modifications of materiel. Materiel must be able to be returned to its original state within 24 hours. Special modifications to aircraft and COMSEC equipment require prior approval from ATCOM and NSA, respectively.*

**This system meets the requirements of AR 750-1, Army Material Maintenance Policy and Retail Maintenance Operations, Modification Work Orders (MWOs), paragraph 4-9f.**